INTERNATIONAL MONETARY FUND

IMF Country Report No. 22/25

FINLAND

January 2022

2021 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; AND STATEMENT BY THE EXECUTIVE DIRECTOR FOR FINLAND

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2021 Article IV consultation with Finland, the following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its January 26, 2022 consideration of the staff report that concluded the Article IV consultation with Finland
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on January 26, 2022, following discussions that ended on November 19, 2021, with the officials of Finland on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on January 7, 2022.
- An **Informational Annex** prepared by the IMF staff.
- A **Statement by the Executive Director** for Finland.

The IMF's transparency policy allows for the deletion of market-sensitive information and premature disclosure of the authorities' policy intentions in published staff reports and other documents.

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International Monetary Fund
Washington, D.C.

PRESS RELEASE

PR22/19

IMF Executive Board Concludes 2021 Article IV Consultation with Finland

FOR IMMEDIATE RELEASE

Washington, DC – January 31, 2022: On January 26, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation[1] with Finland.

Finland experienced one of the smallest contractions in economic activity in 2020 among European countries, thanks to a successful containment strategy of the pandemic and a comprehensive policy response. The economic recovery in 2021 was strong, and output and employment are now above their pre-pandemic levels. Consumer prices increased markedly in 2021, reflecting the global rise in raw materials' prices and pandemic-related production bottlenecks. The current account has hovered around balance.

The recovery is expected to continue into 2022. Output is projected to grow at 2¾ percent in 2022, buoyed by private consumption and investment. Growth could be stronger with a faster unwinding of household savings, but pandemic-related risks to global growth remain high and could negatively impact Finland. Medium-term growth prospects are constrained by adverse demographics and low productivity—trends that precede the pandemic.

Fiscal policy during the pandemic provided timely and needed support. Pre-pandemic, the government embarked on an ambitious program to build a socially, economically and ecologically sustainable society, with additional spending financed largely through backloaded measures to boost employment. Public debt has increased to close to 70 percent of GDP and is projected to remain on an increasing trajectory in the medium term, as the current and planned employment measures will unlikely produce sufficient fiscal gains to bring the fiscal deficit back to its pre-pandemic level.

The financial system has weathered the pandemic well. Banks are well-capitalized, liquid, and profitable, and the lowering of structural capital buffer requirements at the onset of the pandemic provided additional lending and loss-absorbing capacity. But the banking sector is large and highly concentrated, and banks are highly exposed to residential and commercial real estate, the latter facing headwinds from the pandemic. The increase and changing composition of household debt has added to borrower-side vulnerabilities.

[1] Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board.

700 19th Street NW
Washington, DC 20431
USA

Executive Board Assessment[2]

Executive Directors welcomed the authorities' swift and comprehensive policy response to the pandemic, which helped limit its health and economic impact. They noted that while an economic recovery is underway, supported by a high vaccination rate and a strong rebound in domestic demand, risks remain elevated amid high pandemic-related uncertainty. In this context, Directors agreed that macroeconomic policies should remain flexible, while structural reforms should continue to address longstanding challenges, including low productivity and an ageing population.

Directors recommended that fiscal policy should remain flexible in the near term, supporting the economic recovery as needed. Noting that public debt will remain on a rising trajectory and the need to prepare for aging-related pressures, they recommended a moderately faster and well-calibrated fiscal consolidation over the medium term, focused on expenditure reduction and guided by a spending review. Directors also underscored the importance of enhancing policy credibility by returning to the original spending limit in the context of medium-term fiscal adjustment.

Directors supported structural policies to boost employment and productivity. They encouraged prioritizing efforts to reduce labor market rigidities and improve the employment prospects of women with care responsibilities, improve tertiary education, and address skill shortages. They also highlighted the need for a more flexible wage bargaining system that supports employment and productivity. Directors commended the authorities for setting an ambitious target of net-zero greenhouse gas emissions by 2035, and called for a more comprehensive strategy to meet this goal. In this context, many Directors encouraged the authorities to consider the merits of implementable measures that strengthen carbon pricing, complemented with fiscal incentives, and informed by a deeper staff analysis on their social and sectoral impacts.

Directors welcomed the resilience of the financial system. They noted however that rising vulnerabilities in household finances and banks' high exposure to real estate warrant continued close monitoring. Directors also recommended additional measures to enhance macrofinancial resilience, including restoring structural capital buffers in the banking system to pre-pandemic levels. Further efforts are also needed to enhance the macroprudential toolkit, including through introducing targeted borrower-based measures and a positive neutral countercyclical buffer requirement in the medium term.

[2] At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: http://www.IMF.org/external/np/sec/misc/qualifiers.htm.

Finland: Selected Economic and Social Indicators, 2019–2026

					Projections				
	2019	2020	2021	2022	2023	2024	2025	2026	2027
Output and demand (volumes)	(Percentage change, unless otherwise indicated)								
GDP	1.3	-2.9	3.4	2.8	1.5	1.3	1.3	1.3	1.3
Domestic demand	-0.4	-2.7	3.1	2.8	1.5	1.2	1.3	1.3	1.2
Private consumption	0.7	-4.7	3.8	3.7	1.4	1.3	1.3	1.2	1.2
Public consumption	2.0	0.5	3.3	-0.5	0.5	0.5	0.5	0.5	0.5
Gross fixed capital formation	-1.6	-0.7	1.0	4.1	2.6	1.6	1.8	1.8	1.8
Change in stocks (contribution to growth in percent of GDP)	-0.9	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Exports of goods and services	6.8	-6.8	4.6	5.0	3.4	3.3	3.2	3.2	3.2
Imports of goods and services	2.3	-6.5	3.6	4.9	3.3	3.3	3.2	3.2	3.2
Net exports (contribution to growth in percent of GDP)	1.7	-0.1	0.3	0.1	0.1	0.0	0.0	0.0	0.0
Prices, costs, and income									
Consumer price inflation (harmonized, average)	1.1	0.4	2.1	2.7	1.7	1.8	1.8	1.8	1.9
Consumer price inflation (harmonized, end-year)	1.1	0.2	3.8	1.7	1.7	1.8	1.8	1.8	1.9
GDP deflator	1.5	1.3	2.3	1.9	1.7	1.7	1.7	1.7	1.7
Labor market									
Labor force	0.3	-0.4	1.6	0.1	0.0	0.0	0.1	-0.1	-0.1
Employment	1.1	-1.5	1.6	1.2	0.0	0.1	0.1	0.1	0.0
Unemployment rate (in percent)	6.7	7.8	7.8	6.8	6.7	6.7	6.7	6.6	6.5
Potential output and NAIRU									
Output gap (in percent of potential output)[1]	0.2	-3.7	-1.4	0.0	0.1	0.0	0.0	0.0	0.0
Growth in potential output	1.3	1.0	1.0	1.4	1.4	1.4	1.3	1.3	1.3
General government finances[2]				(Percent of GDP)					
Overall balance	-0.9	-5.4	-3.4	-2.1	-1.6	-1.6	-1.5	-1.5	-1.5
Primary balance[3]	-0.8	-5.3	-3.4	-2.2	-1.8	-1.7	-1.7	-1.6	-1.6
Structural balance (in percent of potential GDP)[4]	-1.0	-2.7	-2.5	-2.0	-1.7	-1.5	-1.5	-1.5	-1.5
Structural primary balance (in percent of potential GDP)[5]	-0.9	-2.6	-2.5	-2.2	-1.9	-1.7	-1.6	-1.6	-1.6
Gross debt	59.5	69.5	69.9	69.3	70.1	71.4	72.5	73.6	74.5
Net debt[6]	-62.6	-64.5	-57.6	-52.8	-49.6	-46.6	-43.7	-40.9	-38.2
Money and interest rates					(Percent)				
M3 (Finnish contribution to euro area, growth rate, e.o.p.)	10.2	...	...	...	...	...	...	...	...
Finnish MFI euro area loans (growth rate, e.o.p.)	5.3	...	...	...	...	...	...	...	...
3-month Euribor rate (percent)	-0.4	...	...	...	...	...	...	...	...
10-year government bonds yield	0.1	...	...	...	...	...	...	...	...
National saving and investment					(Percent of GDP)				
Gross national saving	23.8	25.2	24.7	24.7	24.9	24.8	24.9	24.9	24.9
Gross domestic investment	24.1	24.4	23.8	24.2	24.4	24.5	24.6	24.7	24.8
Balance of payments									
Current account balance	-0.3	0.8	0.8	0.6	0.4	0.4	0.3	0.2	0.1
Goods and services balance	0.2	0.3	0.5	0.3	0.3	0.3	0.3	0.4	0.4
Net international investment position	4.0	-5.8	-4.5	-3.7	-3.0	-2.5	-2.0	-1.7	-1.4
Gross external debt	224.2	225.1	225.4	222.3	222.9	222.1	221.6	221.0	220.4
Exchange rates (period average)									
Euro per US$	0.89	...	...	...	...	...	...	...	...
Nominal effective rate (appreciation in percent)	-0.6	...	...	...	...	...	...	...	...
Real effective rate (appreciation in percent)[7]	-1.6	...	...	...	...	...	...	...	...

Sources: Bank of Finland, BIS, International Financial Statistics, IMF Institute, Ministry of Finance, Statistics Finland, and Fund staff calculations.

[1] A negative value indicates a level of actual GDP that is below potential output.

[2] Fiscal projections include measures as specified in the General Government Fiscal Plan.

[3] Adjusted for interest expenditures and receipts.

[4] Not adjusted for COVID-related one-off measures.

[5] Adjusted for interest expenditures and receipts. Not adjusted for COVID-related one-off measures.

[6] Defined as the negative of net financial worth (i.e., debt minus assets).

[7] CPI-based real effective exchange rates.

INTERNATIONAL MONETARY FUND

FINLAND

STAFF REPORT FOR THE 2021 ARTICLE IV CONSULTATION

January 7, 2022

KEY ISSUES

Context: With strong policy support, Finland suffered a relatively mild economic contraction in 2020 followed by a swift recovery in 2021. Medium-term growth prospects are less strong, due to adverse demographics and low productivity growth—trends that precede the pandemic. Public debt has increased due to pandemic-related support and will remain on a rising trajectory in the medium term, largely reflecting permanent spending increases.

Fiscal policy: In the near term, fiscal policy should remain flexible, providing support as needed. But policy should gradually refocus on placing public finances on a stronger footing. A moderately faster than currently envisaged consolidation over the medium term would bring debt on a declining path. The adjustment effort should focus on reducing expenditure; additional measures to boost employment and growth—continuing to close routes to early retirement for older workers and better targeting of benefits—would also help. Returning to spending limits would enhance fiscal credibility.

Structural policies: Structural policies to boost employment and productivity remain key for bolstering potential growth, even though these may not result in immediate fiscal savings. These include improving employment among women with care responsibilities, improving tertiary education, and addressing skill shortages. The wage bargaining system should support employment and productivity.

Climate policies: A more comprehensive strategy is required to meet Finland's ambitious climate goal of net-zero emissions by 2035. This includes strengthening carbon pricing through higher and more harmonized pricing across sectors, reinforced by fiscal incentives across different sectors, including the use of feebates.

Macroprudential and financial policies: Targeted policies are required to address rising vulnerabilities in household finances. These include income-based measures for riskier borrowers and addressing features of the tax code that create investor preference for housing company loans. Capital requirements aimed at structural risks should be raised to pre-pandemic levels. A positive neutral countercyclical capital buffer requirement in the medium term would provide some macroprudential policy space.

Approved By
M. Pradhan (EUR) and M. Sommer (SPR)

The hybrid mission took place virtually (November 8–10, 2021) and in Helsinki (November 11–19, 2021). The team comprised Salvatore Dell'Erba, Olamide Harrison, Raju Huidrom, and Wojciech Maliszewski (head, all EUR). Hannah Jung and Tan Wang (both EUR) assisted from headquarters. Mr. Pösö (OED) joined the discussions. The mission met with Ms. Saarikko, Minister of Finance; Mr. Rehn, Governor of the Bank of Finland; Mr. Majanen, Permanent Secretary of the Ministry of Finance; Ms. Tuominen, head of the FIN-FSA; other senior officials; the ECB; social partners; and representatives of the financial sector and academic communities.

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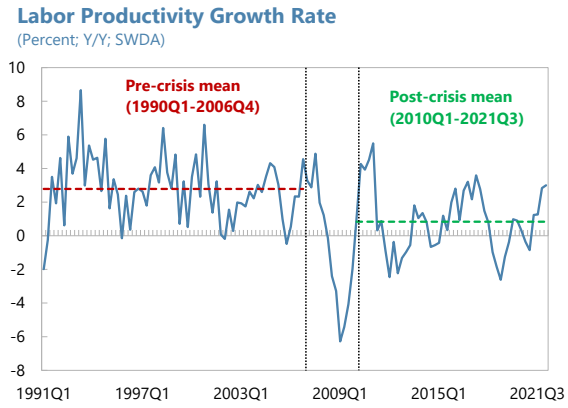
ANNEXES

PANDEMIC CONTEXT: STRONG AND EFFECTIVE POLICY RESPONSE

A. Background

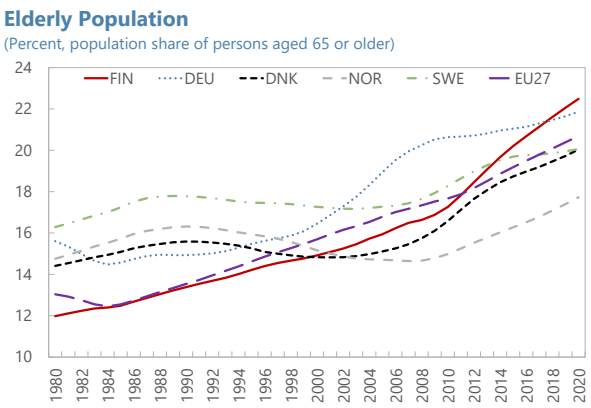
1. The pandemic interrupted a protracted recovery from a sequence of shocks in the late 2000s. Labor productivity growth in Finland has been low, partly because the relatively rigid labor market (IMF 2018) and inefficient matching (IMF 2020) hindered reallocation of resources. Finland's population has also been rapidly ageing, weighing on growth and public finances.

Finland's labor productivity growth after the GFC remains low…



Sources: Haver Analytics.

…and its population is aging rapidly.



Source: OECD.

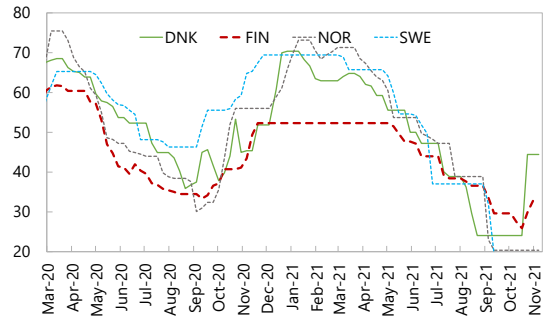
B. Recent Developments

2. COVID containment and mitigation strategies have been effective. The authorities moved swiftly to contain the spread of the virus and the re-opening strategy has been flexible and tailored to regional epidemiological developments. Vaccination has advanced, with nearly 82 percent of the target population having received two doses by December 1st. This helped contain the fallout from the recent increase in cases, which is less pronounced than in other countries and the death rate remains low. However, Omicron variant infections have been discovered in Finland.

Finland's containment and mitigation strategy were flexible and effective.

Oxford Stringency Index 1/

(Index)

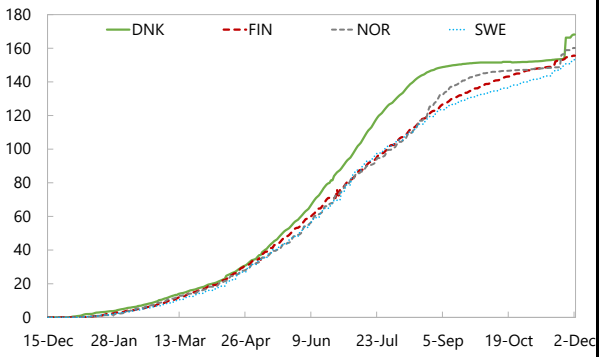


Sources: Oxford University; Bloomberg; IMF staff calculations.
1/ 100 refers to maximum possible containment stringency and 0 refers to no measure.

Vaccine distribution has made giant strides…

Covid-19 Administered Vaccine Doses

(Cumulative vaccine shots per 100 people)

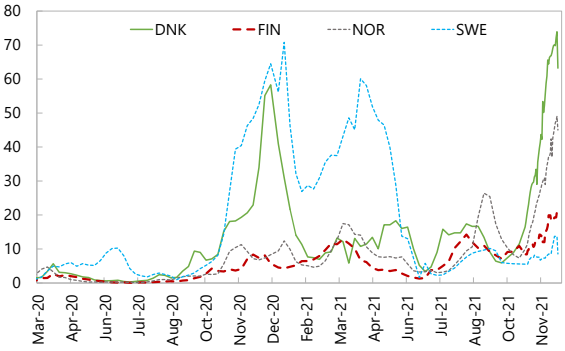


Sources: Bloomberg, and IMF staff calculations.

…helping to control the pandemic.

New Daily COVID-19 Cases

(Per 100,000 inhabitants)

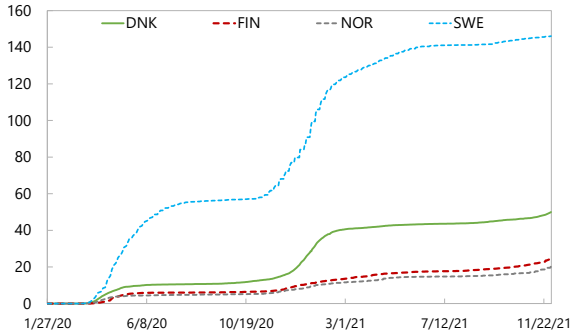


Sources: Bloomberg; IMF WEO; IMF staff calculations.

The death rate in Finland during the pandemic has been one of the lowest in the region.

Cumulative Reported COVID-19 Deaths

(Per 100,000 inhabitants)

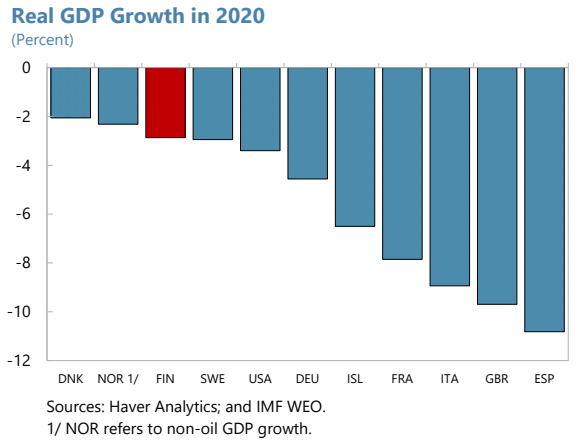


Sources: Haver Analytics; IMF World Economic Outlook; and IMF staff calculations.

3. Policy measures cushioned the impact of the pandemic (Annex V). In addition to strong automatic stabilizers, during 2020–21 the authorities deployed discretionary fiscal support amounting to 4.8 percent of 2020 GDP, combined with below-the-line support equivalent to about 8 percent of GDP. Labor market measures—including temporary layoff schemes and better income security for the unemployed—helped protect jobs and incomes. Support for the corporate sector—including temporary reductions of corporate tax burdens and social security contributions, grants, equity injections, and commercial paper purchases—helped mitigate liquidity and solvency risks. The government also temporarily limited creditors' right to petition for bankruptcy based on temporary insolvency, thus preventing a wave of bankruptcies.

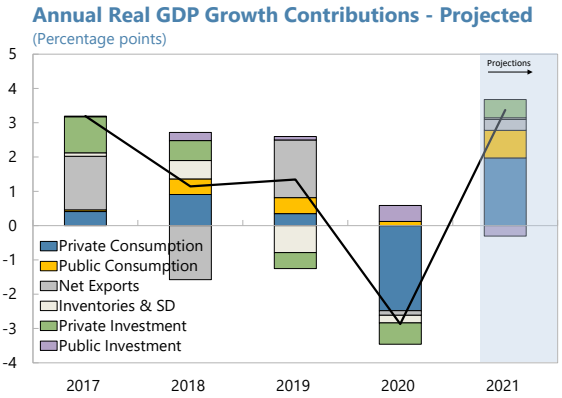
4. The 2020 recession was one of the mildest in Europe, followed by a swift recovery (Figure 1). GDP declined by a relatively modest 2.9 percent in 2020, and a strong vaccination campaign and the removal of restrictions helped restore confidence among businesses and households in 2021, helping the economy grow at a 9 percent annualized rate in Q2 and bringing GDP back to its pre-pandemic level. The labor market continued to improve in the first half of 2021. Labor market shortages—amid rising vacancies—and supply chain bottlenecks are, however, weighing on activity.

The economic contraction in Finland in 2020 was one of the mildest in Europe…



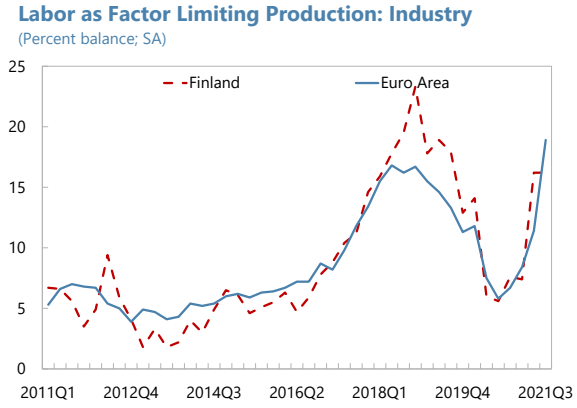
Sources: Haver Analytics; and IMF WEO.
1/ NOR refers to non-oil GDP growth.

…followed by a swift recovery.



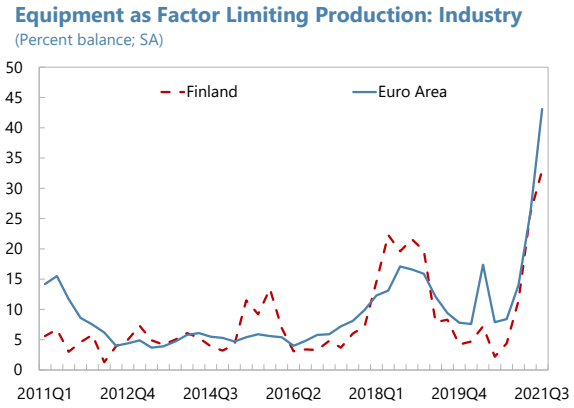
Sources: IMF estimations.

Labor shortages are increasing…



Sources: Haver Analytics and European Commission.

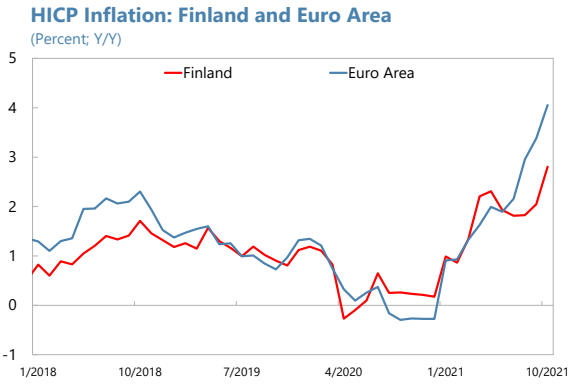
…and supply chain disruptions are constraining industrial activty.



Sources: Haver Analytics and European Commission.

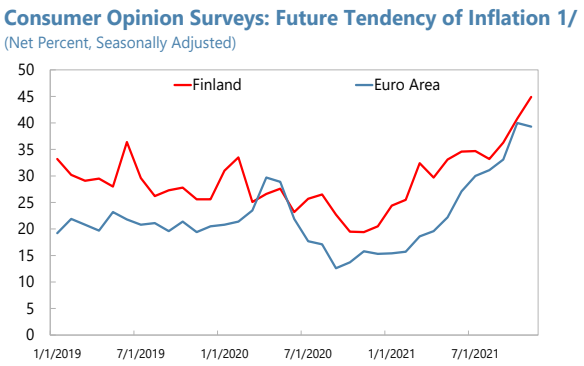
5. Headline inflation has increased markedly in 2021, but remains below the level in the Euro Area. HICP inflation has averaged 2 percent (y-o-y) year to date, hitting 3.7 percent in November 2021. This reflects higher raw materials prices (even though the impact of energy price increases is cushioned by relatively low import dependency) and pandemic-related production bottlenecks. Core inflation has also risen in the first quarter, averaging 1.3 percent year to date. While inflation remains lower than in the euro area, the recent increases are starting to be incorporated into consumers' inflation expectations.

Inflation has increased markedly in 2021…



Sources: Statistics Office of the European Communities; and IMF staff calculations.

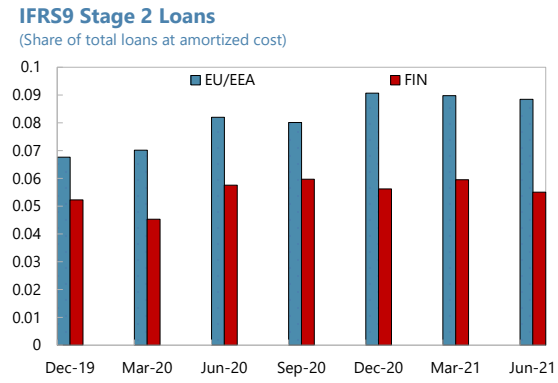
…and inflation expectations are rising.



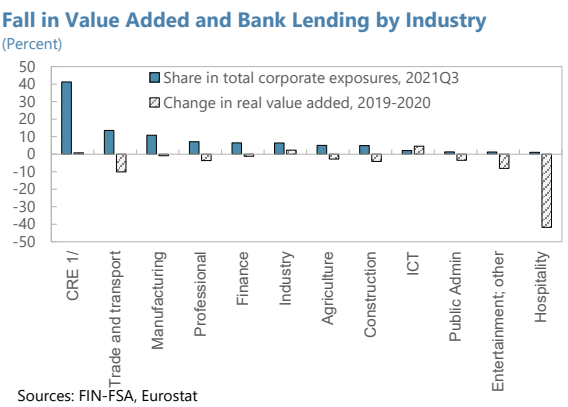
Sources: OECD.
1/ Survey Question: "By comparison with the past 12 months, how do you expect that consumer prices will develop in the next 12 months?"

6. The current account has hovered around balance and is broadly in line with fundamentals (Figure 2). The current account increased from -0.3 in 2019 to 0.8 percent of GDP in 2020, on the back of a pandemic-related compression of imports and a large improvement in the primary income balance, driven partly by banks holding off from dividend distributions. Staff assess the external position in 2020 to have been broadly in line with medium-term fundamentals and desirable policies, and preliminary results indicate the same for 2021 (Annex III).

7. Banks weathered the pandemic well. Banks are well-capitalized, liquid, and profitable, and the lowering of structural capital buffer requirements at the onset of the pandemic provided additional lending and loss-absorbing capacity. Furthermore, corporate and household balance sheets appear to have been relatively unscathed from the pandemic, as indicated by only a modest pickup in Stage 2 loans (those with significantly increased credit risk) after the expiry of support measures. Banks were not particularly exposed to contact-intensive sectors.



Sources: European Banking Authority.

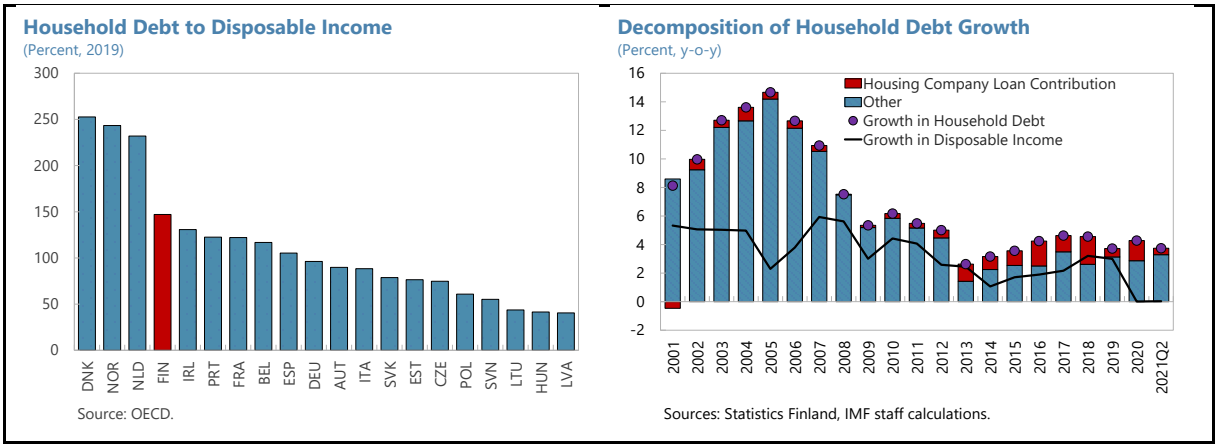


Sources: FIN-FSA, Eurostat
1/ CRE includes housing company loans.

8. But some vulnerabilities in the banking sector were amplified by the pandemic (Figure 3). Even though Finland's membership in the Single Supervisory and Single Resolution Mechanism is a mitigating factor, the banking sector is large and highly concentrated, more so with Nordea re-domiciling in 2018. Banks are highly exposed to residential and commercial real estate, the latter—especially office and retail—facing headwinds from the pandemic. Close

regional financial system interlinkages expose banks to potential regional spillovers. This vulnerability is amplified by banks' reliance on wholesale funding, a large share of which is external. The banking sector is also exposed to ML/TF risks from cross-border financial flows, and the FATF mutual evaluation report highlighted AML/CFT vulnerabilities (including in the supervision of financial sector) that need to be promptly addressed.

9. The increase and changing composition of household debt continues to pose borrower-side vulnerabilities. Pre-pandemic, real estate prices were not overvalued, but household debt was increasing (although still low relative to Nordic peers). Much of this new debt was in the form of housing company loans—loans that finance buying shares of a housing company that may be connected to a specific apartment instead of purchasing it directly—which mask risk exposures for households.[1] Unsecured consumer credit was also on the rise. As the pandemic struck, the authorities relaxed loan-to-collateral (LTC) requirements for housing loans. This was accompanied by an increase in highly leveraged borrowing, and housing valuations rose throughout Finland. Housing price growth has begun to moderate somewhat in the second half of 2021.



10. Progress with the implementation of previous Fund advice—addressing longer-term challenges and vulnerabilities—has been uneven. To place public finances on a more sustainable footing given long-term demographic challenges, the government planned to stabilize debt by 2023, but this was deferred to the middle of the decade due to the pandemic. There has been some progress with structural policies to boost employment and growth but measures to improve tax and benefit incentives are pending. On macrofinancial policies, measures to address the vulnerabilities of borrowers are being discussed (See Annex II).

C. Political Situation

11. The five-party center-left coalition (in place since December 2019) shares a program with the aim to build a 'socially, economically, and ecologically sustainable welfare state'. Policy discourse is currently dominated by structural reforms needed to boost employment,

[1] The debt is mutually guaranteed, so shareholders are liable for payments of all debt held by the housing company—including in case of nonpayment of fees by other shareholders.

linked in the authorities' plan to fiscal consolidation and achieving Finland's climate goal. The next parliamentary elections will be held in 2023.

OUTLOOK AND RISKS

12. The near-term outlook is for the rebound in activity to continue. The pickup of consumption is expected to continue into 2022 as more confident households draw down savings. Investment is also expected to accelerate as uncertainty declines and global growth prospects brighten. Public consumption is expected to retreat with fiscal adjustment. Net exports are projected to play a limited role in the rebound, with imports recovering in tandem with consumption and investment. The labor market will continue to improve, supporting wages and consumption. The output gap is projected to close in 2022 and, given the strong rebound, the pandemic-induced scarring should be minimal. Headline inflation is expected to continue to rise this year reaching 2 percent and remain slightly higher in 2022 on the back of higher projected energy prices. Corporate and household defaults may still increase from current levels, but banks are adequately provisioned and have buffers to absorb larger-than-expected losses.[2]

13. But risks are high amid pandemic-related uncertainty. Growth could be stronger with a faster unwinding of precautionary and forced savings, even though this could result in higher and more persistent inflation (given continued supply-side disruptions and as second-round effects on wages arise in the ongoing bargaining round). On the other hand, pandemic-related downside risks to growth increased with the Omicron variant, and could impact Finland both directly and through global demand given its openness and integration in global value chains. Furthermore, structural transformations triggered by the pandemic could be protracted and costly as labor market rigidities impede resource reallocation. A tightening of global financial conditions could also reverberate in Finland, weighing on the real estate market and private consumption and investment; the impact could be amplified by banks' reliance on external wholesale funding and large real estate exposures.

14. Medium-term growth prospects are less strong, due to adverse demographics and low productivity—trends that precede the pandemic. Staff forecast potential growth to converge to 1.3 percent in the medium term, similar to pre-pandemic forecasts. The contribution of labor to potential growth would decline over the medium term due to the shrinking working-age population, offset by a slight increase in labor productivity. But there are downside risks to the paths of both labor supply and productivity as both rely on a successful implementation of structural reforms.

Authorities' Views

15. The authorities broadly agreed with the assessment of outlook and risks. They noted that the strong growth this year is likely to continue in 2022 when the output gap could balance or even turn positive. However, they saw the balance of risks tilted to the downside. A prolonged

[2] EBA and FINFSA stress tests indicate that Finnish banks are resilient to stress.

pandemic and persistent supply chain bottlenecks represent downside risks to growth and upside risks to inflation. Uncertainty regarding the wage bargaining framework has ebbed, but negotiations with public sector employees in early 2022 may be difficult, posing some risks to the outlook. The authorities also acknowledged risks from a tightening of global financing conditions, but consider the higher-than-average income and financial assets of more indebted households as mitigating factors. They agreed that medium-term growth prospects are challenging, noting the increase in long-term unemployment during the pandemic as additional risk to potential growth.

POLICY PRIORITIES

In the near term, the policy priority is to support the recovery. Over the medium term, government objectives are to boost employment (to increase employment rate to 75 percent by 2025) and growth, which would help stabilize public debt in the 'middle of the decade' and build the foundation for achieving broader sustainability objectives in the 2030s (which include further strengthening public finances and a target of net-zero emissions by 2035). But the medium-term fiscal objective would fall short under current policies, and would not be enough to prepare for aging-related pressures and to rebuild buffers. Staff recommend a moderately faster fiscal adjustment—provided the recovery is firmly on track—relying on a broader set of policy measures. Enhancing the macroprudential toolkit would strengthen macro financial resilience.

A. Unwinding Pandemic-related Support and Securing Fiscal Sustainability

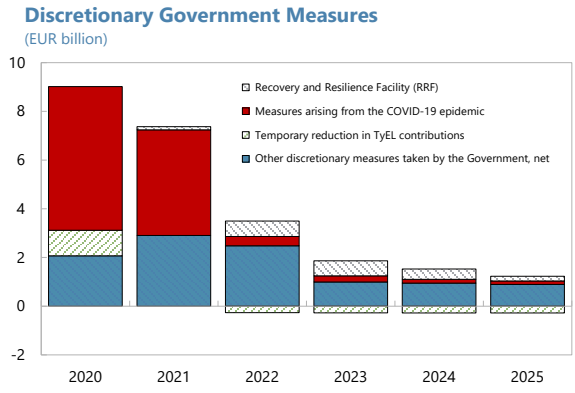
16. The fiscal stance in 2022 is broadly appropriate. The planned unwinding of COVID-related measures, together with the projected recovery and some new tax measures, will reduce the fiscal deficit from 3.4 percent in 2021 to 2.1 percent in 2022. The structural primary deficit will adjust less (2.5 percent in 2021 compared to 2.2 in 2022), still providing considerable support to the economy together with spending from Next Generation EU grants (of around 1 percent of GDP, with ½ percent of GDP frontloaded during 2022–23). If downside risks materialize, fiscal policy should stand ready to deploy additional support through temporary and targeted measures, including those related to labor markets.

17. But the medium-term fiscal path leaves Finland vulnerable to shocks and unprepared to cope with long-term challenges.

- *Over the medium term, the fiscal position is projected to stay weaker than before the pandemic.* This reflects higher discretionary spending (relative to the Spring 2019 government plan) on environmental protection and climate action, reforming employment services, education and research, and health and social services reform (transferring delivery from municipalities to new, larger 'well-being counties' to ensure equal access to services). This additional spending in support of government program objectives amount to around 1 percentage point of GDP in 2022 and ½ of a percentage point in the medium term. At the same time, staff project the

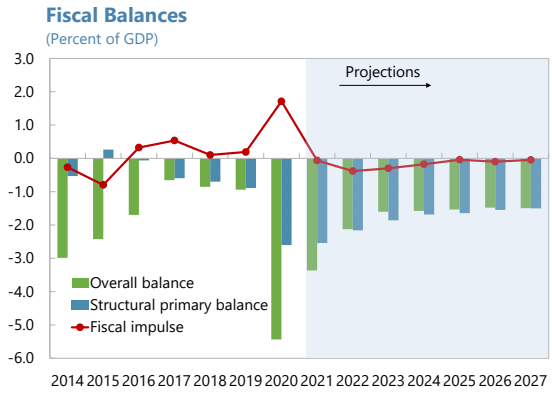
revenue ratio to decline below the pre-pandemic level in the medium term, as a reduction in indirect taxes (partly from climate-related measures) more than offset 2022 budget tax measures (¼ percent point in revenues by 2027) and fiscal gains from measures to increase employment (0.1 percent of GDP by 2027). The structural primary balance will remain at around -1¾ percent of GDP in 2023–27, which is about ¾ percentage point below the pre-pandemic level.

Most of COVID-related measures are planned to unwound in 2022…



Source: Ministry of Finance.

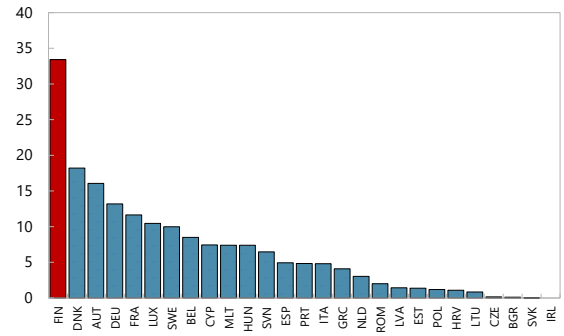
…and the fiscal stance in 2022, in terms of the structural primary balance, is contractionary.



Sources: IMF World Economic Outlook; and IMF staff calculations.

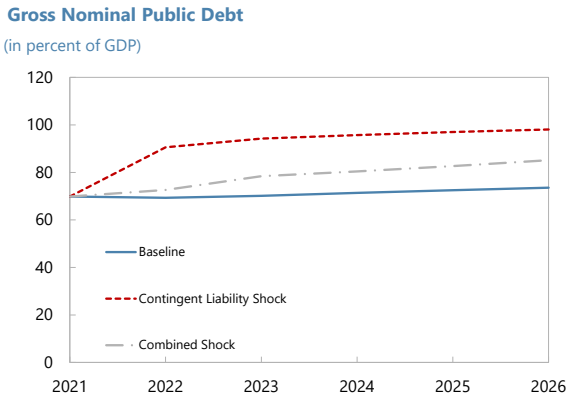
- *Public debt is on an increasing trajectory, but sustainable in the medium term.* Public gross debt is expected to reach 74½ percent of GDP by 2027 (from about 60 percent in 2019). Analysis from the new DSA framework (MAC SRDSF)[3] suggests public finances to be sustainable, with a high probability of debt stabilizing over the medium term. That said, some DSA scenarios generate steeper debt trajectories and much higher debt levels, particularly in the contingent liability shock scenario, which is highly relevant for Finland given sizeable government guarantees (Annex IV).

Guarantees, in percent of GDP, are higher than in peers…



Sources: Eurostat.

…and can pose contingent liability risks.

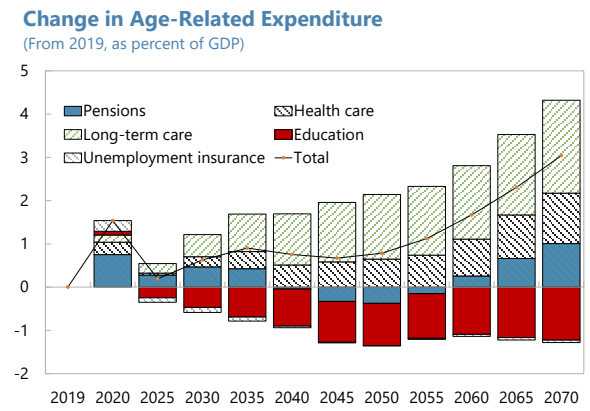


Source: IMF staff calculations.

[3] Review of The Debt Sustainability Framework For Market Access Countries, IMF Policy Paper No. 2021/003.

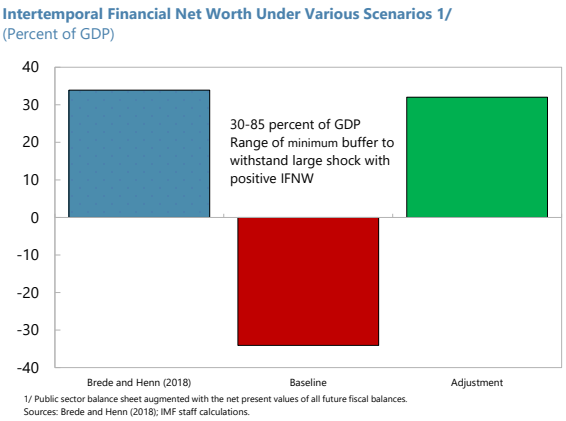
- *Longer-term sustainability is not secured.* Aging-related fiscal pressures are projected to intensify, arising mainly from health and long-term care spending (and to a lesser degree from pensions, as the retirement age is linked to life expectancy). The current fiscal path would bring the intertemporal net worth of the public sector—a comprehensive indicator of fiscal sustainability incorporating aging-related costs[4]—into negative territory.

Rising demand for healthcare and social services will stress public finances in the long term…



Source: Ministry of Finance.

…and long-term pressures would bring intertemporal net worth of the public sector to negative territory under the current fiscal path.



1/ Public sector balance sheet augmented with the net present values of all future fiscal balances.
Sources: Brede and Henn (2018); IMF staff calculations.

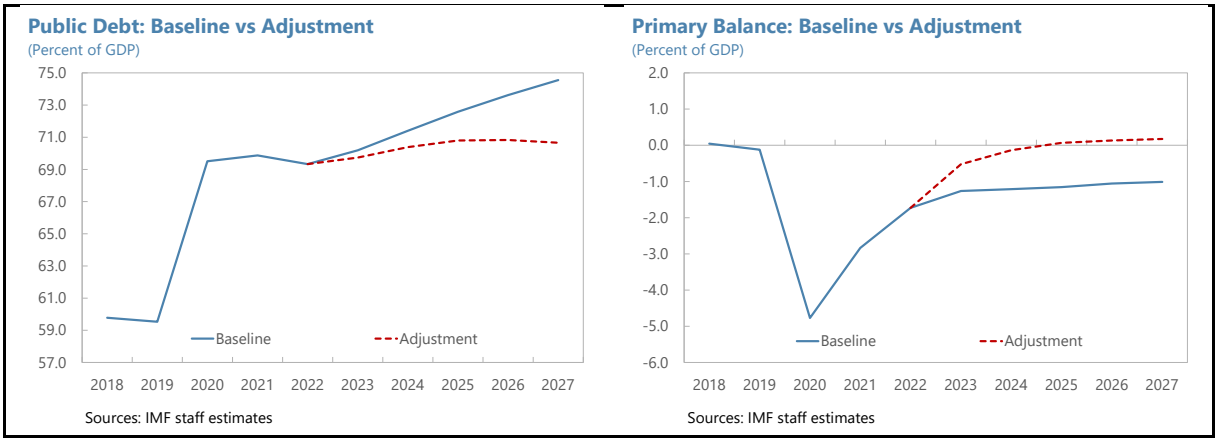
18. The authorities aim to stabilize debt in the middle of the decade, mainly through measures to boost employment.

- *Key employment measures aim to reduce disincentives to work and strengthen job-assistance.* To close routes to early retirement of older workers, the minimum age for additional days of unemployment insurance has been raised, and the government plans to further close the routes that exist via disability benefits. The Nordic employment services model (tying unemployment benefits to job applications, combined with more intensive and individualized job search support) will replace the unpopular "activation model" (linking unemployment benefits to part-time employment and other employment-related activities). This will be supported by transferring employment services to municipalities, with greater funding for case workers, but more financial responsibility for unemployment benefits to incentivize job-matching. According to MOF estimates, these measures are expected to generate fiscal savings of about 0.2 percent of 2020 GDP by the end of the decade.
- *While beneficial, other measures may not bring significant medium-term fiscal gains.* Other employment measures include a reduction in early childhood education fees (to incentivize employment of caregivers), reforms to continuous learning and adult education allowance (to target support to low-skilled), expansion of the wage subsidy program, extension of compulsory education (to boost skills of labor market entrants), and measures to encourage migration and facilitate integration of migrants. The MOF expects that fiscal impact of these measures would be small, be realized only over a longer horizon. Based on current policies, there would still be a residual gap to achieve the government's medium-term fiscal

[4]Brede M. and C.Henn (2018): "Finland's Public Sector Balance Sheet : A Novel Approach to Analysis of Public Finance", IMF Working Paper 18/78.

adjustment objective, which the authorities remain committed to fill in with additional employment or, if necessary, fiscal measures.

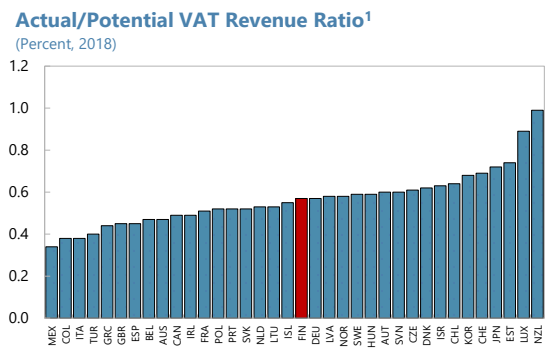
19. A moderately faster consolidation over the medium term would help build buffers and place public finances on a more sustainable footing. Provided that the recovery is firmly on track, additional growth-friendly consolidation measures should aim to bring public debt on a declining path and the intertemporal financial net worth to a level considered as safe given potential shocks (above 30 percent of GDP, Brede and Henn (2018)). An illustrative staff scenario (assuming a mix of measures discussed in ¶21, mostly cuts in government consumption and transfers) indicates that these objectives could be achieved by gradually reducing the structural primary deficit to the pre-pandemic level by 2027.



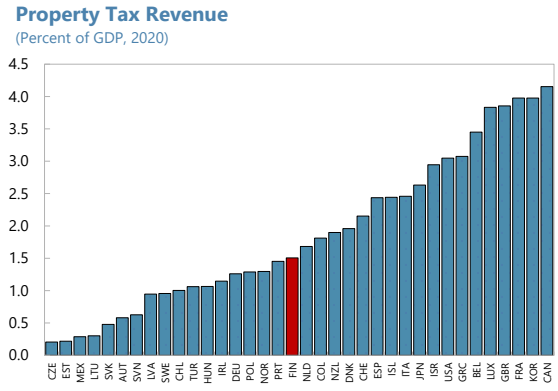
20. Part of the adjustment could come from additional measures to boost employment. The government is committed to find employment measures to generate 110 million euro of additional fiscal savings (less than 0.1 percent of GDP). Staff recommend continuing to close routes to early retirement for older workers and, more broadly, better targeting of in-work and out-of-work benefits, which could generate larger fiscal gains and improve labor supply incentives (IMF 2020).

21. But additional fiscal measures may be needed, including a recalibration of policies to support climate goals. Current and planned policies—e.g., related to energy-intensive industries, transportation sector, green investment under the Next Generation EU—aim to incentivize a fossil-free transition. Some of these measures, however, would steer towards lower tax bases, reducing indirect taxes (as share of GDP) over the medium term. Alternative measures could include more cuts in environmentally-harmful subsidies (e.g., rolling back of the recent extension of tax-free part of the use of peat) and higher climate-related taxation (a €125 per ton carbon price in Finland recommended by staff would raise extra revenues of about 0.3 percent of GDP by 2030; IMF (2021)). Besides climate-related policies, the tax base for the standard-rate VAT could be broadened and there is some scope to increase property tax revenues, as these are low in Finland relative to other countries. But, as taxation overall is already high, the adjustment effort should focus on reducing expenditure: a spending review could help identify efficiency gains and fiscal savings, including in the context of ongoing health and social services reform (which is

consistent with the government strategy in Sustainability Roadmap (2021), outlining longer-term adjustment strategy to achieve the government sustainability objectives).



Source: OECD.
1/ VAT Revenue Ratio, VRR=VRB /(B*r); VRB = actual VAT revenues; B = potential tax base and r = standard VAT rate.



Source: OECD.

22. Returning to expenditure ceilings would enhance fiscal credibility. The spending limits system is not a statutory instrument (MOF 2020). It applies to about 80 percent of central government budgets (excluding, among other categories, automatic stabilizers) and is set in the government program at the start of each four-year parliamentary term. The limits were appropriately suspended in 2020 to respond to the COVID emergency. Direct COVID-related costs were also excluded from the limits in 2021–23, together with additional COVID-related emergency spending of 500 million euros in both 2021 and 2022. Beyond the pandemic-related changes, the limits were further increased by 900 million euros for 2022 and 500 million euros for 2023 (0.3 and 0.2 percent of GDP respectively), partly to accommodate additional spending in the government program. The government already plans to permanently reduce expenditure of EUR 370 million under the spending limit from 2023 onwards (into the next parliamentary term), but staff recommend returning to the original limit in the context of the medium-term adjustment. The national fiscal objective—including the speed and the timeline of consolidation—should be adjusted based on how EU budget rules unfold.

Authorities' Views

23. The authorities agreed that the fiscal stance in 2022 is broadly appropriate and shared staff's concerns of longer-term sustainability. They concurred with staff that fiscal policy should remain flexible, deploying temporary and targeted measures as needed in response to adverse shocks. They also shared staff's assessment of longer-term fiscal pressures and risks and remain committed to stabilizing debt in the medium term (while acknowledging that a moderately faster consolidation may be appropriate if the strong cyclical rebound continues). They stressed that structural measures to boost employment are key to achieve this objective, and they broadly agreed with staff on policy priorities in this area. They also recognized that direct fiscal measures may still be needed to stabilize debt and, in this context, agreed that a spending review could be one possible, however laborious, tool to enhance spending efficiency. The authorities shared staff's view that uncompromised respect for the spending limits system and the expenditure limit set would enhance fiscal credibility.

B. Structural Reforms

24. Reforms to boost growth will help achieve the government's sustainability objectives, but payoffs are uncertain and will materialize only in the long run. To increase productivity, the government objective is to increase R&D spending to 4 percent of GDP by 2030; in addition to public R&D, including through increased tax deductions to incentivize private R&D. These plans are welcome, but implementation remains key (scaling up may not be cost-effective if the capacity to absorb is limited). The reform to streamline university admission procedures (recent changes include requiring at least half of university admissions based on matriculation exam results) could help address skill shortages, but should be complemented by more permanent plans to increase university resources (OECD 2020). To alleviate labor shortages, the government seeks to attract skilled foreign labor by streamlining residency permits, but language barriers remain an issue and employment gains may be realized more slowly. In this area, more should be done to encourage employment among women with care responsibilities—for instance by better targeting the home care allowance and housing benefits while further improving access to childcare. Also, reflecting its relatively more centralized wage bargaining system, wages in Finland are compressed and misaligned with productivity across sectors, adding to labor market rigidities and further weighing on productivity (Annex VI). To support employment and productivity, staff recommend a system where high-level agreements set broad framework conditions, but with more flexibility in firm-level contracts.

Authorities' Views

25. The authorities broadly agreed on priorities for other structural reforms to boost growth. They noted though that reducing home care benefits would be politically difficult, especially as ensuring equal access to daycare would be costly and not achievable quickly. Relative to staff's assessments, they are more optimistic on other measures, such as attracting foreign labor, improving education, and increasing R&D spending. They agreed that more flexibility in the wage bargaining framework would be beneficial but emphasized that the current system has served Finland well, providing social stability and largely ensuring competitiveness.

C. Achieving the Goal of Net-zero Emissions

26. A more comprehensive suite of policies is needed to reach the climate goal of net-zero emissions by 2035. Apart from supporting climate goals, current and planned measures, discussed above, may enhance growth, including through technology spillovers, and reduce pollution-related mortality and morbidity. However, estimates from the Ministry of Environment indicate that the current measures would not be sufficient to bring emissions to the net-zero target (a shortfall of about 40 percent than required). Additional policies could include strengthening carbon pricing through higher and more harmonized pricing across sectors, reinforced by fiscal incentives across different sectors including the use of feebates (IMF 2021).

Authorities' Views

27. The authorities concurred with staff that more needs to be done to meet the climate target. They acknowledged emission shortfalls relative to the target under current policies. They mentioned that additional measures to reduce emissions are being planned.

D. Enhancing Financial and Macroprudential Policies

28. The authorities are taking steps to mitigate vulnerabilities in household finances. Following the recent increase in highly leveraged mortgage borrowing, the authorities tightened the LTC limit to pre-pandemic levels. Parliament will discuss in the spring of 2022 a draft bill on borrower-based macroprudential tools including maturity limits for housing and housing company loans, and loan-to-value (LTV) limits for housing company loans (a debt-to-income (DTI) cap was removed from the draft bill due to strong industry and political opposition). Additionally, an electronic registry of housing company shares should be operational by end-2022, making it easier to assess risks of investing in housing companies. But implementation of the planned comprehensive credit registry has been delayed to 2024 due to technical constraints.

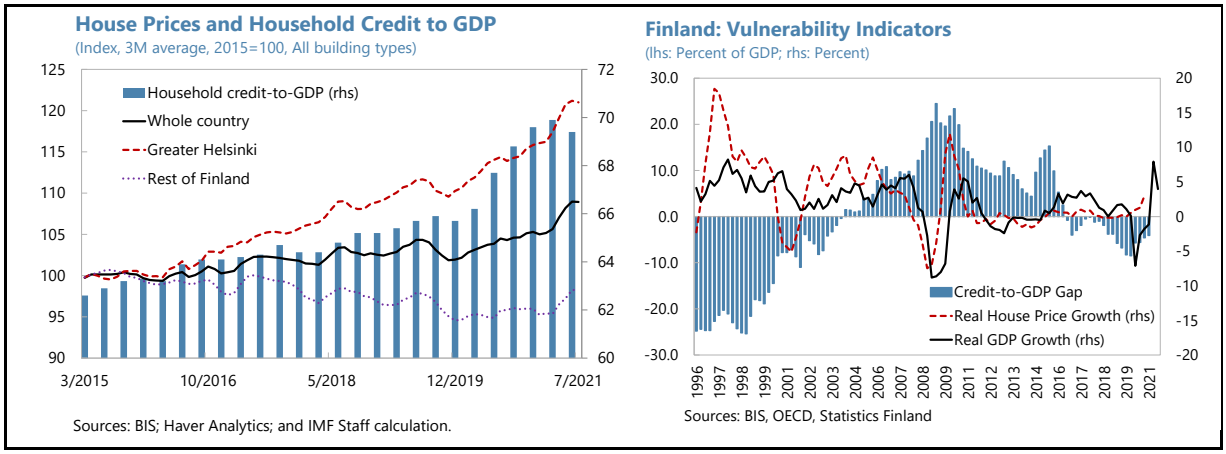
29. Staff recommend that more steps be taken to enhance the macroprudential toolkit and strengthen macrofinancial resilience. The macroprudential toolkit could be enhanced further to include: (i) a DTI cap in line with recommendations from the government-appointed working group and reflecting growing household debt vulnerabilities; and (ii) supplementing the DTI cap with a debt-service-to-income cap once the new comprehensive credit registry is operational. Features of the tax code that create incentives for investors to favor housing company loans should be addressed so as to mitigate compositional changes in household debt (the recent MOF review concluded that separating the treatment of housing company shareholders' loans' amortization costs from interest and other expenses could help balance incentives). In this context, data relating to consumer credit and housing companies should be improved.

30. Structural and cyclical capital-based macroprudential tools should also be strengthened.

- *Structural capital-based tools*. Pre-pandemic, the systemic risk buffer (SyRB) requirement had been imposed due to structural risks of the banking system, including its size, concentration, and interconnectedness. At the onset of the pandemic, the authorities removed the SyRB and lowered Other Systemically Important Institution (O-SII) buffer requirements for one institution, thereby lowering requirements by 1 percentage point across institutions (Text Table 1). Yet the risks against which structural buffers were built remain. Given the strength of the recovery, staff recommend that the SyRB requirement of 1 percent be re-introduced across all institutions to return structural buffer requirements to pre-pandemic levels. In addition, the CRDV/CRR2 framework permits the use of a sectoral SyRB to build resilience against specific exposures, including based on borrowers' riskiness. The authorities could consider this tool in building resilience against adverse real estate shocks. These decisions

should be made in the context of the 2022 EU review of the macroprudential regulatory framework and the Basel III reform (the introduction of the output floor from 2028 is projected to increase capital requirements for some Finnish banks).

- *Cyclical capital-based tools*. Currently, there are no obvious signs of a buildup in aggregate cyclical systemic risk and staff do not see a basis for increasing the CCyB from 0 percent on purely cyclical grounds. However, considering a broad range of risks, staff recommend that to provide policy space the authorities should consider introducing a positive neutral countercyclical capital buffer in the medium term (Annex VII).



31. The mission discussed other financial sector and related issues:

- *Corporate sector*. Staff urge the authorities to continue careful monitoring of credit quality, NPLs, and insolvencies, as pandemic-related support is unwound. Also, staff recommend that the authorities improve CRE data collection efforts as suggested by the ESRB.

- *AML/CFT*. Staff welcome recent enhancements to the AML/CFT framework including, *inter alia,* increased AML supervisory and legal resources, adopting a ML/FT risk-based model, and imposing sanctions for AML breaches. Legislative improvements have led to two of the ratings being upgraded by the Financial Action Task Force. Staff encourage the authorities to advance the reform implementation, including by addressing ML/TF risks from non-resident and cross-border financial activity.

- *FDI screening*. Staff welcome the authorities' intention to maintain a positive attitude toward foreign investments in the context of amendments to the Act on the Screening of Foreign Corporate Acquisitions. The amendments were introduced for national security reasons but did not change the scope of the Act. The screening mechanism in most cases does not considerably delay the planned acquisition.

Text Table 1. Finland: COVID-19 Macroprudential Policy Relaxation (March 2020)

Instruments 1/	**Denmark**	**Sweden**	**Finland**	**Norway**
Demand Side Tools (DTI, DSTI, LTI, LTV)	95% LTV	85% LTV	90% (95% 2/) ~~85% (95% 2/)~~	DTI of 5
Household sectoral capital requirements		25% risk weight floor for mortgages	15% risk weight floor for mortgages	Portfolio level LGD floors
Countercyclical capital buffer (CCyB)	0,0% ~~1,5% (2,0%)~~	0,0% ~~2,5%~~	0,0%	1,0% ~~2,5%~~
Other systemically important institutions (O-SII) buffer		0,0 - 2,0%	0,5% - 2,0%	
Systemic risk buffer (SRB) 3/	1,0% - 3,0%	3,0%	0,0% ~~1,0% - 3,0%~~	3,0% - 5,0%
Capital conservation buffer (CCB)	2,5%	2,5%	2,5%	2,5%

Sources: ESRB; IMF Macroprudential Database; IMF staff calculations.
1/ The range of buffer requirements across institutions are shown, where applicable. Strikeouts indicate policy changes at the onset of the covid-19 pandemic.
2/ Finland has a higher cap for first time home borrowers.
3/ The SRB for Denmark was used as a O-SII buffer for systemically important institutions under CRD IV, thus limiting cross-country comparability.

Authorities' View

32. The authorities broadly agreed with staff's assessment of the financial system and recommendations to enhance macrofinancial resilience. They agreed that the financial system is sound, but structural vulnerabilities remain. The central bank and the FIN-FSA saw scope for income-based borrower measures to enhance the macroprudential toolkit, but the government ultimately decided that these are outweighed by costs–potentially limiting homeownership for young and low-income households. The Ministry of Finance noted that introducing these measures could be reassessed when the comprehensive credit registry—which will facilitate the calibration of borrower-based measures for specific groups—is in place. The authorities agreed that returning to pre-pandemic structural capital requirements is desirable and are assessing the overall level of macroprudential buffers in the context of Basel III and CRDV. They saw merit in a positive neutral CCyB, but noted that its implementation requires legislative changes and for now consider using a broader set of indicators in the CCyB framework to identify cyclical systemic risks earlier. The authorities underlined that substantial resources have been invested to strengthen their AML/CFT framework and reaffirmed their commitment to continued enhancement of the AML/CFT supervisory regime.

STAFF APPRAISAL

33. Finland has been highly successful in containing the pandemic. The government's re-opening strategy has been flexible and adaptive to developments in the evolution of the pandemic. Vaccination is well advanced, and, despite a fourth wave of infections, the death rate has remained low.

34. The 2020 recession was one of the mildest in Europe, followed by a swift recovery. Output is now above its pre-pandemic level. The employment rate has also returned to its pre-crisis level. Labor shortages—amid rising vacancies—and supply chain bottlenecks are starting to weigh on activity. Consumer prices increased markedly in 2021, reflecting the global rise in raw materials prices and production bottlenecks.

35. The economic recovery is expected to continue, but risks remain. GDP growth in 2022 will remain strong, buoyed by the strong rebound in domestic demand. Given the strong rebound, pandemic-induced scarring is expected to be minimal. The recovery could be stronger with a faster unwinding of household savings, but pandemic-related risks to global growth are still high and could negatively impact Finland. Medium-term growth prospects are less strong, due to adverse demographics and low productivity.

36. Fiscal policy provided timely and needed pandemic support, but public debt would increase in the medium term. Public debt has increased given pandemic-related support, and would remain on an increasing trajectory in the medium term, largely reflecting permanent spending increases in the government program. In the near term, fiscal policy should remain flexible, providing support as needed. But given aging-related pressures and the need to rebuild buffers, staff recommend a moderately faster fiscal consolidation over the medium term, with a focus on reducing expenditures. Returning to the original spending limit in the context of medium-term fiscal adjustment would enhance policy credibility.

37. Structural policies to boost employment and productivity would help boost potential growth. These include improving employment prospects of women with care responsibilities, improving tertiary education, and addressing skill shortages. It is important that the wage bargaining system support employment and productivity.

38. A more comprehensive strategy is required to meet Finland's ambitious climate goal of net-zero emissions by 2035. This includes strengthening carbon pricing through higher and more harmonized pricing across sectors, reinforced by fiscal incentives across different sectors including the use of feebates.

39. The external position in 2021 was broadly in line with medium-term fundamentals and desirable policies. The current account has hovered around balance following a pandemic-related compression of imports and a large improvement in the primary income balance. A moderate weakening is expected as domestic demand strengthens.

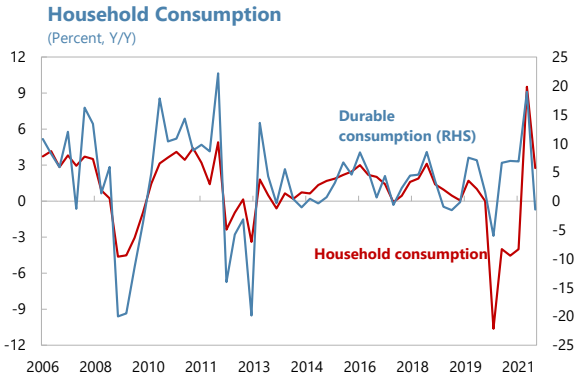
40. The financial system is sound, but extra measures are needed to enhance macrofinancial resilience. The banking sector is large, concentrated, and highly exposed to real estate. Furthermore, the increase and changing composition of household debt creates some vulnerabilities in household finances. Returning structural capital requirements to pre-pandemic levels and enhancing the macroprudential toolkit with targeted borrower-based measures would strengthen macrofinancial resilience. Introducing a positive neutral CCyB in the medium term

would build macroprudential policy space. Addressing features of the tax code that create investor preference for housing company loans would ease demand for these kinds of loans.

41. It is proposed that the next Article IV consultation with Finland be held on the standard 12-month cycle.

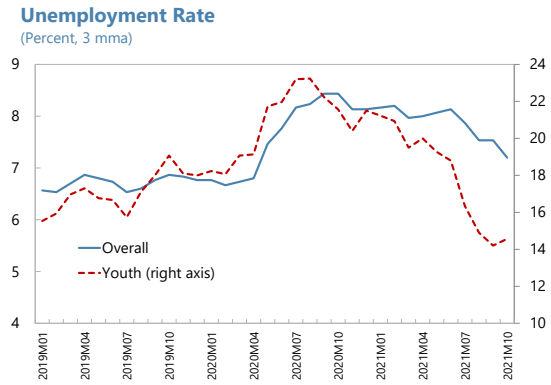
Figure 1. Finland: Real Sector Developments

Household consumption rebounded sharply in early 2021, driven by durable consumption…



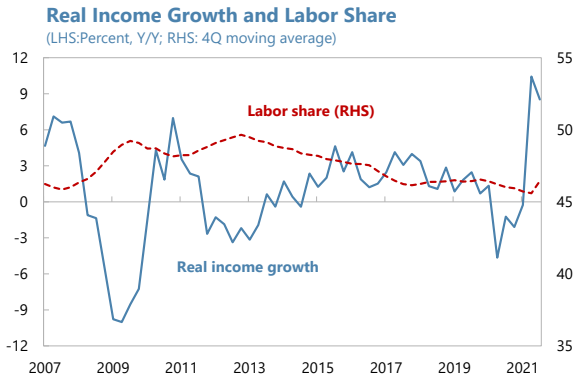
Sources: Haver Analytics; and IMF Staff calculations.

…reflecting recovering labor markets…



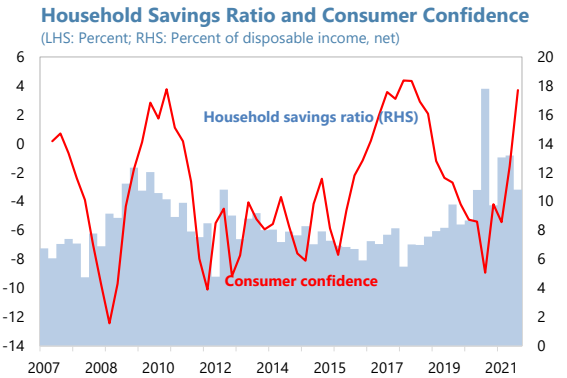
Source: Eurostat.

….and the rebound in real income growth.



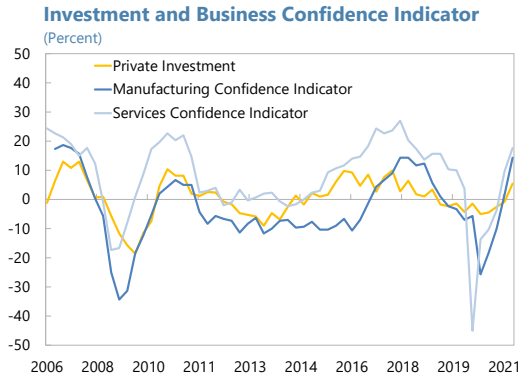
Sources: Haver Analytics; and IMF Staff calculations.

Consumer confidence is on the rise, tracking the ongoing vaccine rollout.



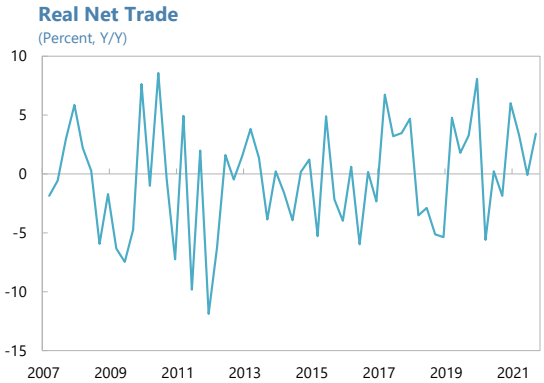
Sources: Haver Analytics; Statistics Finland; and IMF Staff calculations.

Investment has recovered somewhat amid high, but declining economic uncertainty…



Sources: Haver Analytics; and IMF Staff calculations.

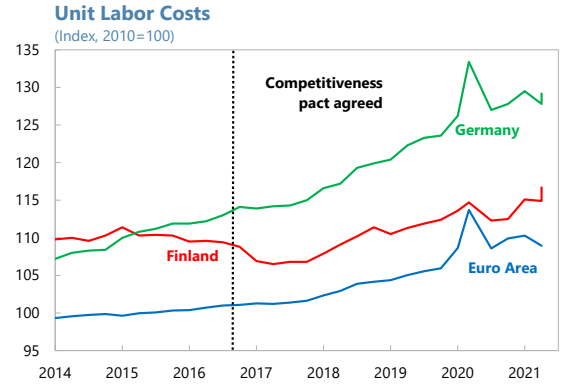
Imports increased along with private consumption and investment, offsetting the bounce in exports.



Sources: Haver Analytics; and IMF Staff calculations.

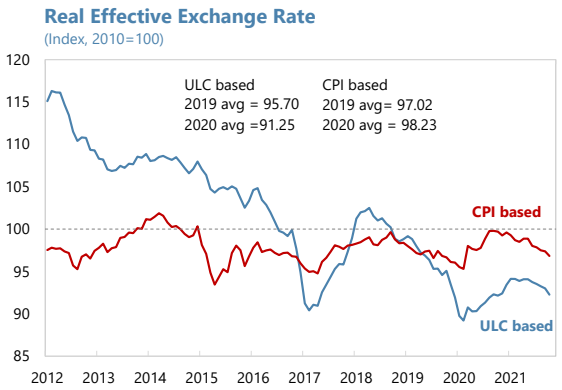
Figure 2. Finland: External Developments

Unit labor cost developments were relatively benign in the years leading up to the pandemic …



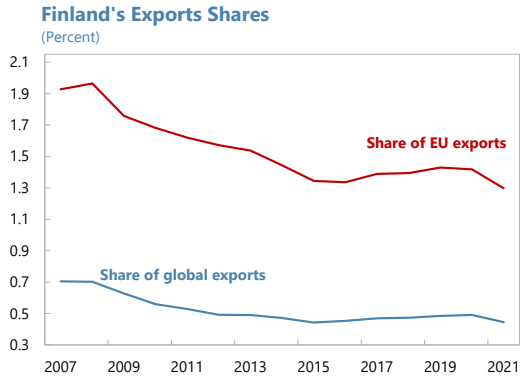
Sources: Haver Analytics; and IMF Staff calculations.

…as were real effective exchange rate developments.



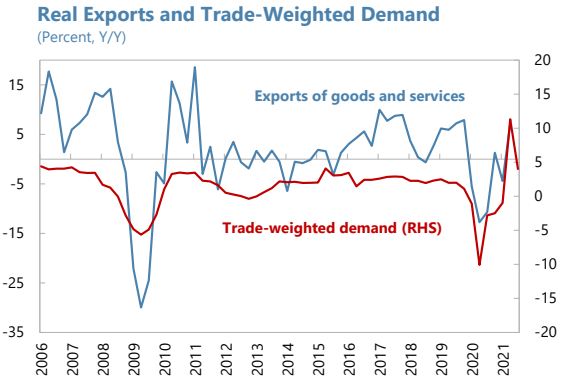
Sources: IMF INS database; and IMF Staff calculations.

The pandemic had a negative impact on Finland's export shares.



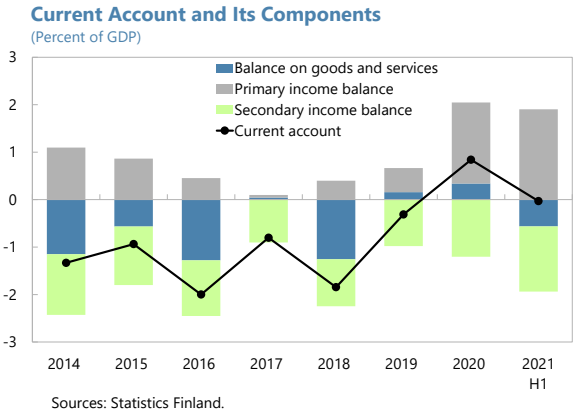
Sources: IMF WEO; and IMF Staff calculations.

External demand has recovered from the pandemic-induced slowdown, but exports have not followed yet.



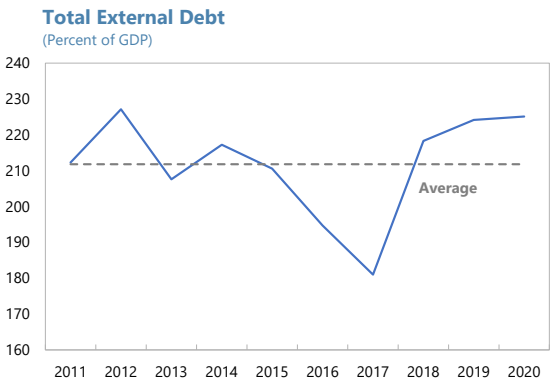
Sources: Country authorities; and IMF Staff calculations.

The CA was in surplus in 2020 driven by a large increase in the primary income balance.



Sources: Statistics Finland.

External debt is above its long-run average.



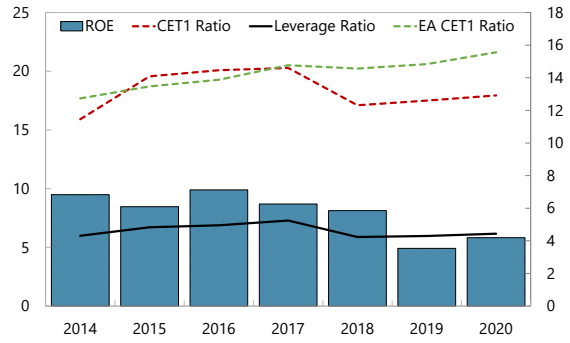
Sources: Haver Analytics and IMF Staff calculations.

Figure 3. Finland: Banking System Indicators

The Finnish banking system is well capitalized, with pre-pandemic profitability moderated by digitalization investments.

Capitalization and Profitability

(Percent)

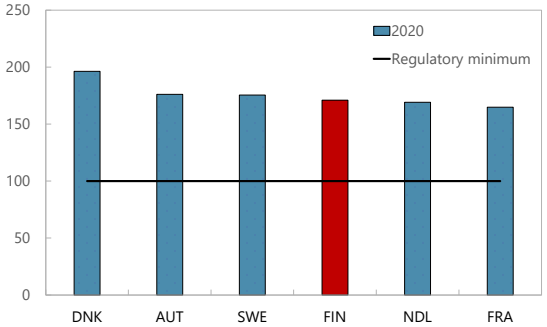


Source: European Central Bank.

Banks are highly liquid, as in peer countries.

Liquidity Coverage Ratio

(Percent)

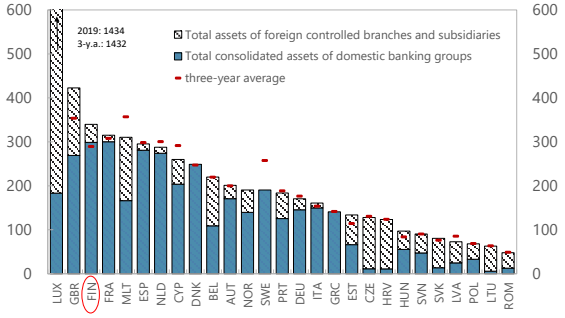


Source: European Central Bank.

But the banking system is relatively large…

Banking Sector Size

(EU; share of nominal GDP; percentages; 2019)

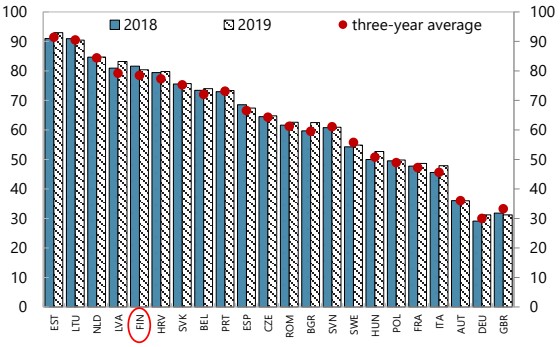


Sources: ECB and Eurostat.
Notes: Based on Consolidated Banking Data.

….and highly concentrated…

Assets Share of the Five Largest Credit Institutions

(Percent)

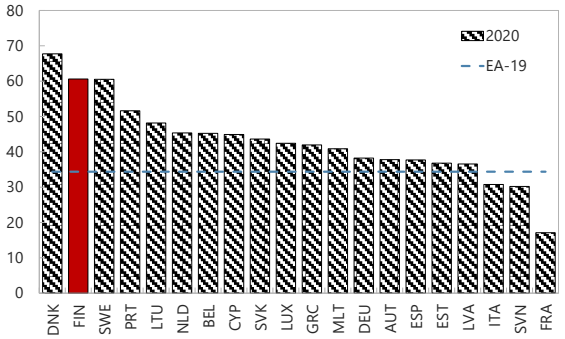


Sources: ECB and Haver Analytics.

with large real estate exposures…

Real Estate Exposure Share

(Percent; Domestic Banks)

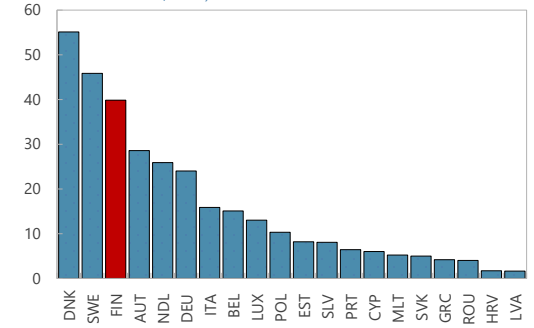


Source: European Central Bank.

….and a heavier reliance on wholesale market funding.

Market Funding [1/]

(Percent of total liabilities, 2020)

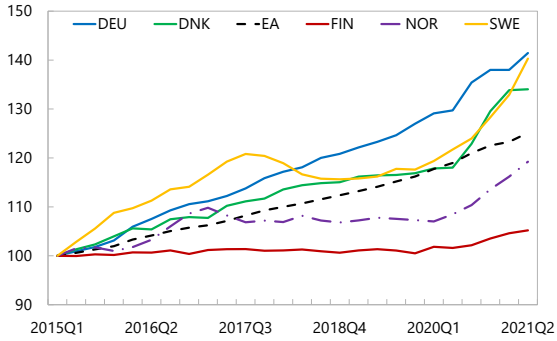


Source: European Central Bank.
1/ Ratio of credit institutions' deposits and debt securities to total liabilities

Figure 4. Finland: Real Estate Market Developments

House prices in Finland increased in real terms, but relatively less than in other European countries.

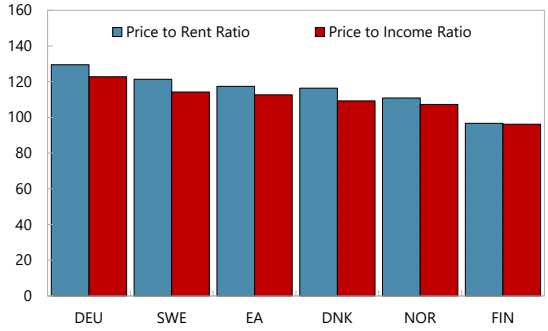
Real House Prices
(Index 2015=100)



Sources: OECD and IMF Staff calculations.

Other valuation measures confirm that housing market developments are benign.

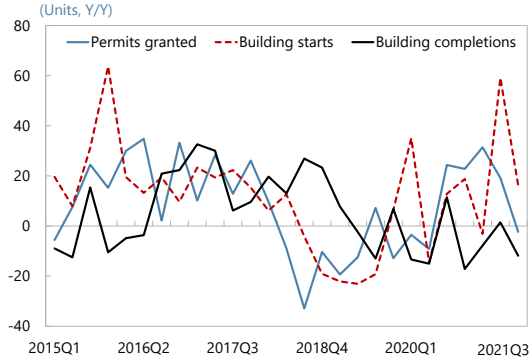
Price-to-Rent and Price-to-Income, 2020
(Ratio)



Sources: OECD.

Housing construction has increased markedly during the recovery.

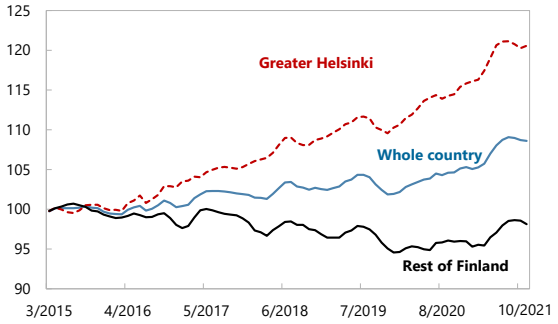
Housing Construction
(Units, Y/Y)



Sources: Haver Analytics; and IMF Staff calculations.

Prices around the country increased during the pandemic and prices in greater Helsinki continue to outpace the rest of the country.

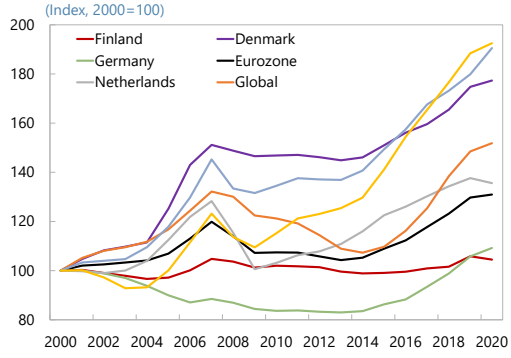
House Prices
(Index, 3M average, 2015=100, All building types)



Sources: Haver Analytics; and IMF Staff calculation.

Value growth in the CRE market has also been relatively benign…

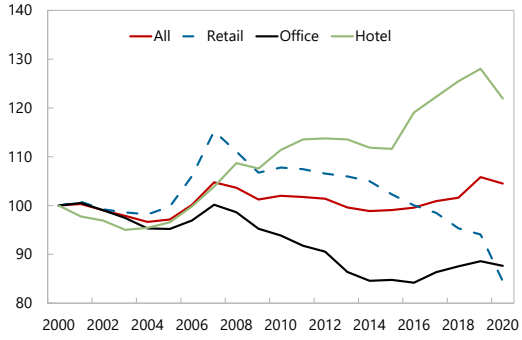
Commercial Real Estate Capital Growth Index
(Index, 2000=100)



Sources: MSCI; and IMF Staff calculations.

…though retail and office segments continue to face strong headwinds.

Capital Growth Rates across Segments in Finland
(Index, 2000=100)

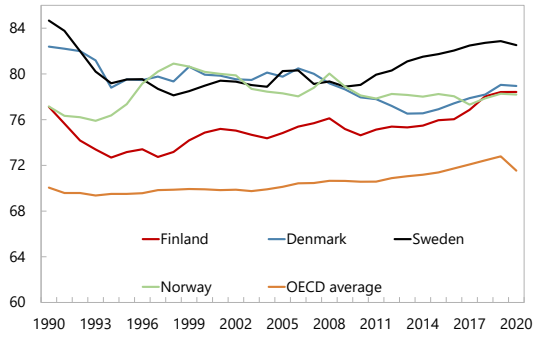


Sources: MSCI; and IMF Staff calculations.

Figure 5. Finland: Labor Market Developments

Labor market participation improved markedly in the years prior to the pandemic …

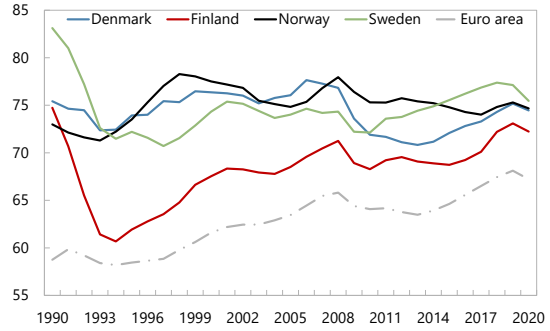
Participation Rates in Nordic Countries
(Percent of the total working-age population, age 15-64)



Source: OECD Labor Force Statistics.

…and the employment rate neared all-time highs, but dipped in 2020

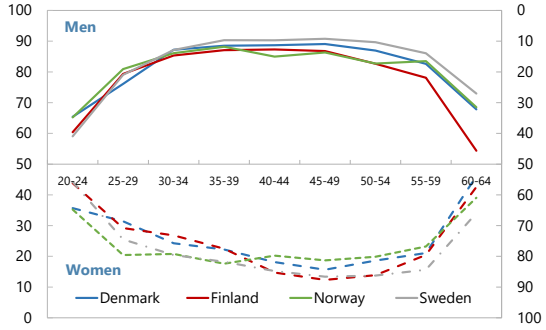
Employment Rate
(Percent of the total working-age population, age 15-64)



Sources: OECD.

Employment rates of the elderly and women with care responsibilities in Finland remain behind peers…

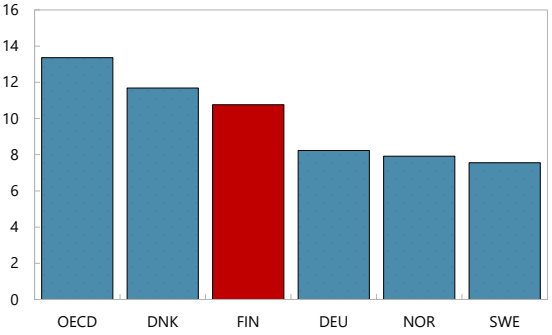
Employment Rate by Age Cohort
(LHS: Percent, Men; RHS: Percent, Women)



Sources: OECD.

…and share of youth not in employment, education, and training is larger than some of the Nordic peers.

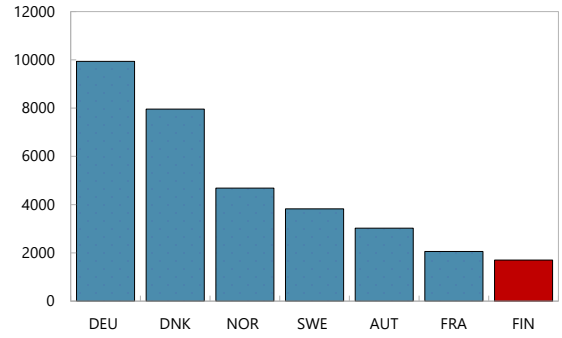
Youth Not in Employment, Education or Training
(Percent of 15-29 year old labor force, 2020 or latest available year)



Source: OECD.

Increased spending on PES would help narrow the gap with peers.

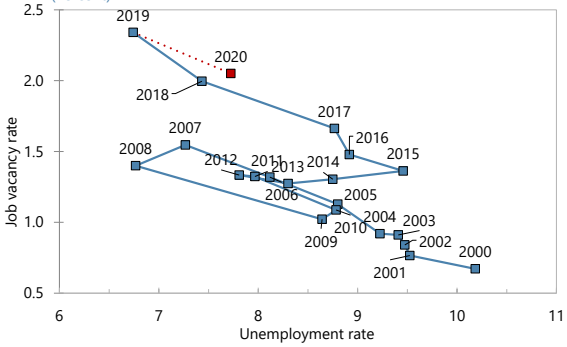
Expenditure on Employment Services Per Unemployed
(Euro per unemployed, 2018)



Sources: OECD, IMF staff calculations.

The outward shift in the Beveridge curve suggests the presence of labor market matching issues.

Beveridge Curve
(Percent)



Sources: Haver Analytics and IMF Staff calculations.

Table 1. Finland: Selected Economic Indicators, 2019–27

	2019	2020	2021	2022	2023	2024	2025	2026	2027
						Proj.			
	(Percentage change, unless otherwise indicated)								
Output and demand (volumes)									
GDP	1.3	-2.9	3.4	2.8	1.5	1.3	1.3	1.3	1.3
Domestic demand	-0.4	-2.7	3.1	2.8	1.5	1.2	1.3	1.3	1.2
Private consumption	0.7	-4.7	3.8	3.7	1.4	1.3	1.3	1.2	1.2
Public consumption	2.0	0.5	3.3	-0.5	0.5	0.5	0.5	0.5	0.5
Gross fixed capital formation	-1.6	-0.7	1.0	4.1	2.6	1.6	1.8	1.8	1.8
Change in stocks (contribution to growth in percent of GDP)	-0.9	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Exports of goods and services	6.8	-6.8	4.6	5.0	3.4	3.3	3.2	3.2	3.2
Imports of goods and services	2.3	-6.5	3.6	4.9	3.3	3.3	3.2	3.2	3.2
Net exports (contribution to growth in percent of GDP)	1.7	-0.1	0.3	0.1	0.1	0.0	0.0	0.0	0.0
Prices, costs, and income									
Consumer price inflation (harmonized, average)	1.1	0.4	2.1	2.7	1.7	1.8	1.8	1.8	1.9
Consumer price inflation (harmonized, end-year)	1.1	0.2	3.8	1.7	1.7	1.8	1.8	1.8	1.9
GDP deflator	1.5	1.3	2.3	1.9	1.7	1.7	1.7	1.7	1.7
Labor market									
Labor force	0.3	-0.4	1.6	0.1	0.0	0.0	0.1	-0.1	-0.1
Employment	1.1	-1.5	1.6	1.2	0.0	0.1	0.1	0.1	0.0
Unemployment rate (in percent)	6.7	7.8	7.8	6.8	6.7	6.7	6.7	6.6	6.5
Potential output and NAIRU									
Output gap (in percent of potential output)[1]	0.2	-3.7	-1.4	0.0	0.1	0.0	0.0	0.0	0.0
Growth in potential output	1.3	1.0	1.0	1.4	1.4	1.4	1.3	1.3	1.3
	(Percent of GDP)								
General government finances[2]									
Overall balance	-0.9	-5.4	-3.4	-2.1	-1.6	-1.6	-1.5	-1.5	-1.5
Primary balance[3]	-0.8	-5.3	-3.4	-2.2	-1.8	-1.7	-1.7	-1.6	-1.6
Structural balance (in percent of potential GDP)[4]	-1.0	-2.7	-2.5	-2.0	-1.7	-1.5	-1.5	-1.5	-1.5
Structural primary balance (in percent of potential GDP)[5]	-0.9	-2.6	-2.5	-2.2	-1.9	-1.7	-1.6	-1.6	-1.6
Gross debt	59.5	69.5	69.9	69.3	70.1	71.4	72.5	73.6	74.5
Net debt[6]	-62.6	-64.5	-57.6	-52.8	-49.6	-46.6	-43.7	-40.9	-38.2
	(Percent)								
Money and interest rates									
M3 (Finnish contribution to euro area , growth rate, e.o.p.)	10.2	...	...	...	...	...	...	...	...
Finnish MFI euro area loans (growth rate, e.o.p.)	5.3	...	...	...	...	...	...	...	...
3-month Euribor rate (percent)	-0.4	...	...	...	...	...	...	...	...
10-year government bonds yield	0.1	...	...	...	...	...	...	...	...
	(Percent of GDP)								
National saving and investment									
Gross national saving	23.8	25.2	24.7	24.7	24.9	24.8	24.9	24.9	24.9
Gross domestic investment	24.1	24.4	23.8	24.2	24.4	24.5	24.6	24.7	24.8
Balance of payments									
Current account balance	-0.3	0.8	0.8	0.6	0.4	0.4	0.3	0.2	0.1
Goods and services balance	0.2	0.3	0.5	0.3	0.3	0.3	0.3	0.4	0.4
Net international investment position	4.0	-5.8	-4.5	-3.7	-3.0	-2.5	-2.0	-1.7	-1.4
Gross external debt	224.2	225.1	225.4	222.3	222.9	222.1	221.6	221.0	220.4
Exchange rates (period average)									
Euro per US$	0.89	...	...	...	...	...	...	...	...
Nominal effective rate (appreciation in percent)	-0.6	...	...	...	...	...	...	...	...
Real effective rate (appreciation in percent)[7]	-1.6	...	...	...	...	...	...	...	...

Sources: Bank of Finland, BIS, International Financial Statistics, IMF Institute, Ministry of Finance, Statistics Finland, and Fund staff calculations.

[1] A negative value indicates a level of actual GDP that is below potential output.

[2] Fiscal projections include measures as specified in the General Government Fiscal Plan.

[3] Adjusted for interest expenditures and receipts.

[4] Not adjusted for COVID-related one-off measures.

[5] Adjusted for interest expenditures and receipts. Not adjusted for COVID-related one-off measures.

[6] Defined as the negative of net financial worth (i.e., debt minus assets).

[7] CPI-based real effective exchange rate.

Table 2. Finland: Balance of Payments, 2019–27

	2019	2020	2021	2022	2023	2024	2025	2026	2027
						Proj.			
			Billions of euros						
Current account	-0.7	2.0	2.1	1.5	1.2	1.0	0.9	0.5	0.4
Goods and services	0.4	0.8	1.2	0.7	0.9	0.9	0.9	1.1	1.2
Exports of goods and services	95.7	85.5	97.7	103.6	108.1	111.8	115.4	119.1	123.3
Goods	64.9	59.7	68.8	72.5	75.3	77.7	80.1	82.6	85.4
Services	30.7	25.8	28.9	31.1	32.8	34.1	35.3	36.5	37.9
Imports of goods and services	95.3	84.7	96.5	102.9	107.1	110.9	114.5	118.1	122.0
Goods	62.6	56.8	65.5	70.0	72.6	74.9	77.3	79.5	82.1
Services	32.7	27.9	31.0	33.0	34.5	36.0	37.2	38.5	39.9
Income	-1.1	1.2	0.9	0.8	0.2	0.0	0.0	-0.6	-0.8
o/w Investment income	-1.1	1.2	0.9	0.8	0.2	0.0	0.0	-0.6	-0.8
Capital and financial account	-8.5	-0.6	2.6	2.0	1.7	1.5	1.4	1.0	0.9
Capital account	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Financial account	-8.7	-0.8	2.3	1.8	1.4	1.2	1.1	0.8	0.7
Direct investment[1]	-7.7	6.4	-2.0	0.3	0.9	1.6	-0.1	1.2	0.3
In Finland	14.0	-1.9	1.3	4.1	4.0	2.0	3.9	2.2	2.9
Abroad	6.3	4.5	-0.7	4.4	4.9	3.6	3.8	3.4	3.2
Portfolio investment	-25.1	-0.8	0.6	-14.9	-17.8	-19.4	-17.5	-13.2	-13.7
Financial derivatives	0.5	-1.6	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4
Other investment	23.1	-5.7	5.2	17.8	19.7	20.5	20.1	14.2	15.5
Assets	15.2	-4.4	25.6	20.6	20.6	15.6	15.6	15.6	2.5
Liabilities	-7.9	1.3	20.4	2.8	0.9	-4.9	-4.6	1.4	-0.3
Reserve assets	0.5	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net errors and omissions	-8.1	-3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			Percent of GDP						
Current account	-0.3	0.8	0.8	0.6	0.4	0.4	0.3	0.2	0.1
Goods and services	0.2	0.3	0.5	0.3	0.3	0.3	0.3	0.4	0.4
Exports of goods and services	39.8	36.2	39.1	39.6	40.0	40.2	40.3	40.3	40.5
Goods	27.0	25.3	27.5	27.7	27.9	27.9	28.0	28.0	28.1
Services	12.8	10.9	11.6	11.9	12.1	12.3	12.3	12.4	12.5
Imports of goods and services	39.7	35.8	38.6	39.3	39.6	39.8	40.0	40.0	40.1
Goods	26.1	24.0	26.2	26.7	26.9	26.9	27.0	26.9	27.0
Services	13.6	11.8	12.4	12.6	12.8	12.9	13.0	13.0	13.1
Income	-0.5	0.5	0.4	0.3	0.1	0.0	0.0	-0.2	-0.3
Capital and financial account	-3.6	-0.3	1.0	0.8	0.6	0.5	0.5	0.3	0.3
Capital account	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Financial account	-3.6	-0.3	0.9	0.7	0.5	0.4	0.4	0.3	0.2
Direct investment[1]	-3.2	2.7	-0.8	0.1	0.3	0.6	0.0	0.4	0.1
Portfolio investment	-10.4	-0.3	0.2	-5.7	-6.6	-7.0	-6.1	-4.5	-4.5
Financial derivatives	0.2	-0.7	-0.6	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
Other investment	9.6	-2.4	2.1	6.8	7.3	7.3	7.0	4.8	5.1
Reserve assets	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net errors and omissions	-3.4	-1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GDP at current prices (bln euros)	240.1	236.2	249.8	261.8	270.3	278.3	286.6	295.3	304.1

Sources: Bank of Finland, Statistics Finland, and Fund staff calculations.

[1] Large inward FDI flows in 2014 and 2015 are mainly due to large mergers and acquisitions (M&A) in those years such as Microsoft's purchase of Nokia's handset business (worth 2.6 percent of GDP) and various M&A deals in the energy, manufacturing and shipbuilding sectors worth more than 0.5 percentage points of GDP each.

Table 3. Finland: International Investment Position, 2011–20

(Percent of GDP)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Assets	369.7	361.3	317.6	344.9	336.8	323.8	276.9	334.5	344.5	323.5
Direct investment	67.7	72.3	66.7	61.5	63.0	67.1	69.6	70.4	74.0	64.4
Portfolio investment	106.3	119.4	123.2	138.1	145.6	145.7	139.4	141.9	145.9	141.5
Equity & investment fund shares	44.3	52.7	58.5	67.6	73.7	76.8	81.9	80.8	90.5	90.7
Debt securities	62.0	66.7	64.7	70.5	71.9	68.9	57.5	61.1	55.4	50.9
Fin. deriv. (other than reserves)	93.2	67.4	41.7	60.3	45.7	41.1	9.0	24.9	25.6	26.7
Other investment	98.5	98.0	82.0	80.7	78.1	65.3	54.9	93.4	94.7	87.0
Reserve assets	4.0	4.2	4.0	4.2	4.4	4.6	3.9	4.0	4.3	3.9
Liabilities	355.8	350.7	314.6	348.0	332.3	318.4	275.6	340.3	340.4	329.0
Direct investment	50.4	51.7	46.6	52.0	57.3	54.5	56.8	48.3	51.3	47.2
Portfolio investment	102.7	119.9	129.2	141.0	146.1	141.4	135.2	170.0	175.9	172.3
Equity & investment fund shares	26.1	31.5	40.3	44.1	48.7	52.1	54.5	62.2	62.7	66.0
Debt securities	76.5	88.4	88.9	97.0	97.5	89.3	80.8	107.8	113.2	106.3
Fin. deriv. (other than reserves)	89.3	63.3	39.3	56.9	44.3	39.6	8.7	26.2	25.9	27.0
Other investment	113.6	115.8	99.6	98.0	84.5	82.9	74.9	95.9	87.3	82.4
Net International Investment Positi	13.9	10.6	3.0	-3.1	4.5	5.4	1.2	-5.8	4.1	-5.4
Direct Investment	17.3	20.6	20.1	9.4	5.6	12.7	12.9	22.0	22.7	17.2
Portfolio Investment	3.7	-0.6	-6.0	-3.0	-0.5	4.3	4.2	-28.1	-30.0	-30.8
Fin. deriv. (other than reserves)	3.9	4.2	2.5	3.4	1.4	1.5	0.3	-1.3	-0.2	-0.4
Other Investment	-15.1	-17.8	-17.5	-17.3	-6.4	-17.7	-20.0	-2.5	7.4	4.6

Sources: Statistics Finland and Fund staff calculations.

Changes to the NIIP since the 2014 Article IV are mainly due to the switch to the BPM6 statistical standard.

Table 4. Finland: General Government Statement of Operations, 2019–27

(Percent of GDP, unless otherwise indicated)

	2019	2020	2021	2022	2023	2024	2025	2026	2027
						Proj.			
Revenue	52.3	51.9	53.1	52.3	52.0	51.8	51.5	51.4	51.4
Tax revenues	30.3	30.4	31.0	30.3	30.1	29.8	29.6	29.5	29.5
Taxes on production and imports	14.0	14.0	14.2	13.9	13.7	13.5	13.5	13.4	13.4
Current taxes on income, wealth, etc.	16.0	16.0	16.4	16.1	16.1	15.9	15.8	15.8	15.8
Capital taxes	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Social contributions	11.9	11.7	12.3	12.2	12.2	12.2	12.2	12.2	12.2
Grants	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Other revenue									
Expenditure	53.2	57.3	56.4	54.4	53.6	53.3	53.0	52.9	52.9
Expense	52.4	56.2	55.6	53.4	52.7	52.5	52.3	52.2	52.2
Compensation of employees	12.5	12.9	12.7	12.7	12.5	12.4	12.4	12.3	12.4
Use of goods and services	10.7	11.3	11.4	10.9	10.9	10.9	10.9	10.8	10.8
Consumption of fixed capital (CFC)	3.5	3.7	3.6	3.6	3.6	3.6	3.7	3.7	3.7
Interest	0.8	0.7	0.5	0.4	0.3	0.4	0.4	0.4	0.5
Subsidies	1.1	1.8	1.8	1.1	1.1	1.1	1.1	1.1	1.1
Grants	1.1	1.2	1.1	1.0	1.0	1.0	1.0	0.9	0.9
Social benefits	21.1	22.7	22.0	21.5	21.4	21.3	21.1	21.0	20.9
Other expense	1.5	2.0	2.5	2.1	1.9	1.9	1.8	1.8	1.9
Net acquisition of nonfinancial assets	0.8	1.1	0.8	1.0	0.9	0.9	0.8	0.7	0.7
Net acquisition of nonfinancial assets excl. CFC									
Consumption of fixed capital (CFC)									
Net operating balance	-0.1	-4.3	-2.5	-1.1	-0.7	-0.7	-0.7	-0.7	-0.8
Net lending/borrowing	-0.9	-5.4	-3.4	-2.1	-1.6	-1.6	-1.5	-1.5	-1.5
Net acquisition of financial assets	0.0	5.0	...	...	...	...	...	...	...
Currency and deposits	-0.9	5.3	...	...	...	...	...	...	...
Securities other than shares	-1.9	-2.5	...	...	...	...	...	...	...
Loans	0.0	0.2	...	...	...	...	...	...	...
Shares and other equity	1.9	2.1	...	...	...	...	...	...	...
Insurance technical reserves	0.0	0.0							
Financial derivatives	1.2	-1.2	...	...	...	...	...	...	...
Other accounts receivable	-0.3	1.1	...	...	...	...	...	...	...
Net incurrence of liabilities	1.2	10.1	...	...	...	...	...	...	...
Special Drawing Rights (SDRs)	0.0	0.0	...	...	...	...	...	...	...
Currency and deposits	0.0	0.0	...	...	...	...	...	...	...
Securities other than shares	0.7	8.2	...	...	...	...	...	...	...
Loans	0.8	1.0	...	...	...	...	...	...	...
Shares and other equity	0.0	0.0	...	...	...	...	...	...	...
Insurance technical reserves	0.0	0.0							
Financial derivatives	0.0	0.0	...	...	...	...	...	...	...
Other accounts payable	-0.4	0.9	...	...	...	...	...	...	...
Memorandum items:									
Primary balance[1]	-0.8	-5.3	-3.4	-2.2	-1.8	-1.7	-1.7	-1.6	-1.6
Structural balance (in percent of potential GDP)[2]	-1.0	-2.7	-2.5	-2.0	-1.7	-1.5	-1.5	-1.5	-1.5
Structural primary balance (in percent of potential	-0.9	-2.6	-2.5	-2.2	-1.9	-1.7	-1.6	-1.6	-1.6
Central government net lending/borrowing	-1.1	-5.5	-3.7	-2.4	-2.1	-2.1	-2.1	-2.0	-2.1
General government gross debt	59.5	69.5	69.9	69.3	70.1	71.4	72.5	73.6	74.5
General government net debt[4]	-62.6	-64.5	-57.6	-52.8	-49.6	-46.6	-43.7	-40.9	-38.2
Central government gross debt	49.3	57.5	57.5	56.5	57.0	57.9	58.8	59.7	60.5
Output gap (percent of potential GDP)	0.2	-3.7	-1.4	0.0	0.2	0.1	0.1	0.0	0.0
Nominal GDP (billions of euros)	240.1	236.2	249.8	261.8	270.3	278.3	286.6	295.3	304.1

Sources: Eurostat, Government Finance Statistics, International Financial Statistics, Ministry of Finance, and Fund staff.

[1] Adjusted for interest expenditures and receipts.

[2] Not adjusted for COVID-related one-off measures.

[3] Adjusted for interest expenditures and receipts. Not adjusted for COVID-related one-off measures.

[4] Defined as the negative of net financial worth (i.e., debt minus assets; excludes all pension liabilities).

Table 5. Finland: Public Sector Balance Sheet, 2014–20

(Percent of GDP)

	2014	2015	2016	2017	2018	2019	2020
Assets	265.5	284.3	285.2	328.9	321.0	333.1	356.9
Nonfinancial	88.9	86.2	86.0	94.5	93.8	93.6	95.9
General Government	78.5	77.3	76.3	76.1	76.0	76.5	77.9
Public Corporations and Central Bank	10.5	8.9	9.6	18.5	17.8	17.1	18.0
Financial	176.6	198.2	199.2	234.4	227.3	239.6	261.0
General Government	131.1	133.7	134.5	136.8	129.4	137.7	152.4
Currency and Deposits	6.4	9.0	8.2	9.1	7.8	6.7	12.1
Debt Securities	22.5	21.6	19.9	18.4	17.0	15.6	13.3
Loans	15.6	15.7	14.6	12.9	11.1	10.9	11.3
Equity and investment fund shares	80.3	81.2	86.1	88.8	85.0	96.3	105.9
Insurance, pension and standardized guarantees	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Financial derivatives and stock options	1.1	1.0	0.9	1.1	3.3	3.4	3.9
Other accounts receivable	5.1	5.0	4.6	6.4	5.0	4.6	5.8
Public Corporations and Central Bank 1/	45.5	64.5	64.8	97.6	97.9	101.9	108.6
Liabilities	122.7	141.2	142.9	188.6	187.0	190.7	210.3
General Government	74.6	77.4	78.0	76.2	74.9	75.1	87.9
Currency and Deposits	0.4	0.4	0.4	0.4	0.3	0.4	0.3
Debt Securities	53.5	54.2	54.2	51.5	49.4	49.5	59.5
Loans	13.8	15.5	15.1	14.0	14.1	14.5	15.8
Equity and investment fund shares	1.4	1.3	1.3	1.2	1.2	1.1	1.2
Insurance pension and standardized guarantee schemes	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Financial Derivatives	-0.5	-0.9	-0.3	0.3	2.7	2.9	3.4
Other accounts payable	6.0	6.8	7.3	8.7	7.1	6.6	7.6
Public Corporations and Central Bank	48.1	63.8	64.9	112.4	112.1	115.6	122.5
Existing pension liabilities 2/	302.5	300.6	298.6	284.6	290.0	289.4	299.4
To public sector employees	104.4	103.2	102.5	102.3	95.1	94.2	97.5
To private employees	198.1	197.4	196.1	182.3	194.8	195.2	201.9
Public Sector Net Financial Worth							
Excluding pension liabilities	53.9	56.9	56.4	45.8	40.2	48.9	50.6
Including existing pension liabilities to public employees	-50.5	-46.2	-46.1	-56.5	-54.9	-45.3	-46.8
Including existing pension liabilities to all employees	-248.6	-243.6	-242.2	-238.8	-249.7	-240.5	-248.8
Public Sector Net Worth							
Excluding pension liabilities	142.8	143.1	142.3	140.3	134.0	142.5	146.6
Including existing pension liabilities to public employees	38.4	40.0	39.8	38.0	38.9	48.3	49.1
Including existing pension liabilities to all employees	-159.7	-157.4	-156.2	-144.3	-155.9	-146.9	-152.8

Sources: Finnish Centre for Pensions; Ministry of Finance; and IMF staff calculations.

1/ Data for public corporations is provided by the Ministry of Finance, except for 2020, which are Fund Staff estimates.

2/ This is the net present value of already-accrued liabilities for work performed in the past, based on data (and discount rates) of the Finnish Centre for Pensions (ETK), except for 2020, which are Fund Staff estimates. These pension liabilities represent a contractual obligation to public sector employees. For private sector employees, rules governing the pension system could potentially be altered to change the present value of payouts.

Table 6. Finland: Financial Soundness Indicators, 2014–20

(Ratios, unless otherwise indicated)

	2014	2015	2016	2017	2018	2019	2020
Capital Adequacy							
Regulatory Capital to Risk-Weighted Assets	17.3	22.9	23.3	21.4	21.5	20.6	20.0
Regulatory Tier 1 Capital to Risk-Weighted Assets	16.4	21.5	21.9	19.6	19.7	18.5	18.1
Total Capital to Total Assets	4.3	5.6	6.5	9.0	9.3	9.1	8.8
Asset quality and exposure							
Non-performing Loans to Total Gross Loans 1/	1.3	1.3	1.5	1.7	1.5	1.4	1.5
Non-performing Loans Net of Provisions to Capital 1/	11.2	9.9	9.5	10.7	8.5	9.5	9.7
Earnings and profitability							
Return on Assets	0.5	0.6	0.6	0.5	0.7	0.7	0.6
Return on Equity	11.3	11.5	10.6	7.5	7.7	9.4	8.2
Non-interest Expenses to Gross Income, percent	60.5	58.3	58.4	55.0	61.6	62.4	58.1
Personnel Expenses as Percent of Noninterest Expenses	35.7	38.0	37.6	36.9	30.8	42.9	47.5
Liquidity							
Liquid Assets to Total Assets (Liquid Asset Ratio)	14.3	16.7	19.0	20.9	16.4	18.0	20.6
Liquid Assets to Short Term Liabilities	18.9	22.4	25.1	20.9	28.9	35.2	41.8
Customer Deposits as Percent of Total (non-interbank) Loans	77.4	80.2	89.4	82.3	71.6	61.0	59.1
Memorandum items							
Change in Housing Price Index (in percent, year average)	-0.4	0.0	0.8	1.6	1.0	1.0	1.8
Total Household Debt (in percent of GDP)	61.5	62.3	63.6	63.6	64.1	64.9	68.8
Total Household Debt (in percent of disposable income)	122.1	125.4	131.7	137.5	144.2	147.1	155.1
Household Interest Expenses (in percent of disposable income)	2.0	1.9	1.7	1.6	1.6	1.6	1.6
Gross Debt of Non-financial Corporations (in percent of GDP)	135.1	141.5	131.2	137.7	137.3	135.1	138.2

Sources: Bank of Finland, ECB, FIN-FSA, Financial Soundness Indicators, and OECD.
1/ Break in series in 2017

Annex I. Risk Assessment Matrix[1]

(Potential Deviations from Baseline)

Source of Risks and Relative Likelihood (High, medium, or low)	Impact if Risk is Realized (High, medium, or low)	Policy Response
Global Risks		
Medium **Global resurgence of the COVID-19 pandemic.** Local outbreaks lead to a global resurgence of the pandemic (possibly due to vaccine-resistant variants), which requires costly containment efforts and prompts persistent behavioral changes rendering many activities unviable.	**High** The recovery is delayed with scarring effects amplifying vulnerabilities in the private sector. More layoffs lead to a considerable increase in unemployment and labor market hysteresis, which will weigh on productivity growth. Firms' liquidity problems translate into insolvencies while highly leveraged corporates may experience significant stress, leading to higher credit spreads, potential downgrades, inability to refinance debt, and defaults. Banks' asset quality deteriorates, resulting in capital shortfalls, thus impairing the lending channel with further adverse implications to growth. Attendant supply-side disruptions would weigh on domestic industrial activity.	• Deploy containment measures to lower the risk of infection and mortality. Provide further support to the healthcare sector. • Deploy temporary and targeted fiscal support measures, including those related to labor markets. • Cushion the downturn by alleviating any tightening of funding conditions, preventing liquidity problems from becoming massive defaults and bankruptcies. • Develop NPL strategies to quickly repair private sector balance sheets. • Address any pre-existing structural issues to support the recovery.
Medium **Disorderly transformations.** COVID-19 triggers structural transformations, but the reallocation of resources is impeded by labor market rigidities, debt overhangs, and inadequate bankruptcy resolution frameworks. This, coupled with a withdrawal of COVID-19-related policy support, undermines growth prospects, and increases unemployment, with adverse social/political consequences. Adjustments in global value chains and reshoring (partly driven by geostrategic and national security concerns) shift production activities across countries.	**High** Multi-faceted changes to the economy lead to increasing income polarization and leaves behind a material share of the population (particularly lower-skilled, lower-income workers).	• Continue protecting the vulnerable and mitigate the likely increase in inequality by ensuring adequate access to healthcare and social assistance including unemployment benefits. • Use active labor market policies and enhanced training and reskilling programs to facilitate reallocation of workers toward firms and sectors with labor demand needs.

[1] The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path. The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability between 30 and 50 percent). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly. The conjunctural shocks and scenario highlight risks that may materialize over a shorter horizon (between 12 to 18 months) given the current baseline. Structural risks are those that are likely to remain salient over a longer horizon.

Source of Risks and Relative Likelihood (High, medium, or low)	Impact if Risk is Realized (High, medium, or low)	Policy Response
Medium **De-anchoring of inflation expectations in the US leads to rising core yields and risk premia.** A fast recovery in demand (supported by excess private savings and stimulus policies), combined with COVID-19-related supply constraints, leads to sustained above-target inflation readings and a de-anchoring of expectations. The Fed reacts by signaling a need to tighten earlier than expected. The resulting repositioning by market participants leads to a front-loaded tightening of financial conditions and higher risk premia, including for credit, equities, and emerging and frontier market currencies.	Medium Rising rates in the U.S. could lead to a broader tightening effect on euro area and Finland financial conditions, weighing on consumption and investment and reducing the policy space to support the recovery. Higher risk premia and lower investor appetite induce a correction in asset prices.	• Existing EU support lines could be drawn upon.
Medium **Rising commodity prices amid bouts of volatility.** Commodity prices increase by more than expected against a weaker U.S. dollar, post-pandemic pent-up demand and supply disruptions, and for some materials, accelerated plans for renewable energy adoption. Uncertainty surrounding each of these factors leads to bouts of volatility, especially in oil prices.	Low A further rise in energy prices could impact households' budgets and slow down the recovery in consumption, though this effect is somewhat mitigated by the lower reliance on gas in the energy mix.	• Continue to facilitate the green transition including by strengthening carbon pricing through higher and more harmonized pricing across sectors—e.g., road transport, industrial, and agricultural sectors—reinforced by fiscal incentives across these sectors, including the use of feebates.
Domestic Risks		
Medium **Faster than expected rebound in domestic economic activity.** A fast unwinding of precautionary and forced savings significantly boosts domestic demand. The output gap closes faster than projected.	Medium The accelerated recovery results in a lower economic scarring and tighter labor market conditions resulting in inflationary pressures. With lower credit risk, firms and households increase leverage to finance investment and consumption.	• Scale back supportive policies. • Revenue windfalls from a stronger-than-expected recovery should be saved to build buffers more quickly.
Medium **Higher and persistent inflation.** Continued supply-side disruptions, combined with a stronger domestic recovery leads to large second-round effects on wages and prices. Inflation persistently overshoots 2 percent.	Medium There could be a vicious cycle of higher inflation feeding into higher inflation expectations which then feeds back to higher inflation. Equity markets could get spooked as expectations could suddenly shift to earlier withdrawal of monetary accommodation, and inflation risk premia would rise.	• Employ macro- and micro-prudential tools to mitigate financial stability risks. • Allow firms to absorb cost increases to the extent that profit margins permit.
Medium **An abrupt shift in market sentiment.** An abrupt adjustment in risk asset prices could interact—and amplified by—preexisting vulnerabilities, and lead to a substantial tightening of financial conditions with adverse real-financial feedback loops.	Medium Sharp increases in funding costs strain leveraged corporates and households and weaken the recovery momentum. Insolvencies increase, resulting in a rapid deterioration of bank balance sheets and profitability with adverse effects on the credit channel.	• Existing EU support lines could be drawn upon. • Employ macro- and micro-prudential tools to mitigate financial stability risks. • Deploy fiscal support to cushion the shock.

Annex II. Past Fund Staff Recommendations and Implementation

Past Staff Recommendations	Implementation
Fiscal Policy	
The government would likely need to take corrective actions to meet its medium-term target of stabilizing debt by 2023, which should remain the fiscal anchor. Planned excise increases could be brought forward. The government could significantly improve the public finances by eliminating environmentally-harmful subsidies. Increasing in-work benefits to low-income and part-time workers and reducing marginal tax rates for upper-middle income workers could boost employment, hours worked and earnings.	Strong and swift fiscal support—including automatic stabilizers—helped cushion the impact of the COVID-19 crisis, but this resulted in an expected deterioration of public finances. The government's plan is to stabilize public debt in the 'middle of the decade.' The government plans to abolish the industrial energy tax rebate system (but specific estimates of environmentally-harmful subsidies are not available). No progress on the high marginal and participation tax; in-work benefits and targeting to lower-income work.
Ensure that health and social services reforms (SOTE) moves forward and generates the ambitious targeted revenue savings and productivity gains. Crucially, cost control has to be part of the debate about health and social services reform.	SOTE is planned to be implemented in 2023. Reform costs include one-offs (administrative and ICT costs) as well as permanent costs (wage harmonization and permanent tax cuts). Efficiency gains and net fiscal savings are expected only in the longer term. There remains sizable uncertainty regarding funding and the fiscal savings.
Structural Policy	
Many Finnish women stay out of the workforce for long periods while raising children which warrants a careful examination of the incentives generated by leave and homecare benefits. Still more could be done to increase participation and employment of older workers, such as by further limiting early labor market exit schemes.	No specific measures on leave and home care benefits even though the government plan is to reduce early childhood and education fees. Some measures have been implemented and some are planned to increase employment of elderly workers.
More resources for case workers who assist those seeking jobs could help. Measures focusing on integrating migrants, especially migrant women, could also yield gains as Finland lags other European countries. But proposals that rely on job subsidies, which are expensive and have had mixed effects in other countries seem likely to disappoint.	Government plans to increase spending on case workers. No specific progress on integrating migrant women. The government is planning to streamline the use of wage subsidies and reform the provision of such subsidies.
Attention should be given to Finland's selective university admission system. Finland has high rejection rates in university applications. Universities could charge moderate tuition fees to increase resources (and therefore help increase enrollment), combined with expanded grants or income-contingent loans for at-risk students. Visa procedures for foreign students should be streamlined and information on career and recruitment services.	A minimum of 50 percent of university admissions will now be based on matriculation exam results, thus streamlining the admission process. The government has plans to attract skilled foreign labor by streamlining residency permits and recognizing foreign degrees.

Past Staff Recommendations	Implementation
Financial Sector and Macroprudential Policies	
The current cap on mortgage loans relative to collateral could usefully be replaced with a cap relative to the value of the property, as is common in other countries	The authorities agree that this measure would be desirable, but do not think that implementation would be feasible over the medium term given political economy constraints.
It would be useful for the authorities to have debt-based macroprudential tools (such as debt-to-income or debt-service-to-income caps) at their disposal should leverage become more stretched.	The authorities planned to implement a debt-to-income cap and had already worked on the calibration. However, this cap was removed from a proposed government bill on macroprudential measures. Other measures such as maturity limits for housing loans and housing company loans, as well as LTV limits for housing company loans, are being discussed.
The authorities should address the underlying causes that have led to the boom in housing company loans.	Preliminary work on the planned government review of the income tax advantages of housing company loans is ongoing.
Staff support the establishment of a "positive credit register"—i.e., a database that credit firms and the FIN-FSA could use to obtain real-time information about customers' debt and income levels.	Efforts to establish a credit register are well underway, but technical, administrative, and legal obstacles imply that completion will take several years. The completion date has been delayed till 2024.
Additional consumer protection measures are needed and require more data collection, especially on consumer lending provided through digital platforms.	The authorities are making efforts to improve collection of data on non-traditional forms of consumer lending. The working group led by the Ministry of Finance has also proposed transferring to the FINFSA the supervision of all consumer creditors.

Annex III. External Sector Assessment

Overall Assessment: *From preliminary estimates, the external position of Finland in 2021 is assessed to be broadly in line with the level implied by medium-term fundamentals and desirable policies, although this is subject to considerable uncertainties. Unit labor costs declined appreciably until 2018; they have been growing moderately since and are projected to continue to do so in the medium term. Export market shares have also shown some signs of improvement, although the COVID-19 crisis and the trade disruptions have halted recent gains.*

Potential Policy Responses: *Wage restraint has resulted in some gains to competitiveness and a slight decline of the REER since 2016. However, it will be important to boost wage flexibility at the firm level, to enhance the economy's ability to adjust to shocks. Structural reforms should continue to focus on increasing productivity. It is especially important that medium-term fiscal restraint supports the strengthening of the external balance.*

Foreign Assets and Liabilities: Position and Trajectory

Background. Finland's net international investment position (NIIP) was -5.4 percent of GDP as of end-2020, and it is projected to be -4.5 percent of GDP in 2021. This improvement is partly driven by an expected increase in other investment as well as portfolio assets, although to a lower extent. Both gross assets and liabilities have steadily increased since 2015, and are estimated at 343 and 348 percent of GDP as of 2021, respectively. The financial sector accounts for about half of both external assets and liabilities, while the remainder is largely held by nonfinancial corporations and government social security funds.

Assessment. The NIIP is projected to improve over the medium term, consistent with a positive current account. Vulnerabilities mainly stem from the large cross-border exposures of the financial sector, including liquidity risk related to foreign-financed wholesale funding. External debt declined in nominal terms in 2020, particularly because of a reduction in short-term liabilities, though it remained stable in percent of GDP. External debt is projected to remain around 210 percent of GDP, close to its historical average.

2021 (Est. % GDP)	NIIP: -4.5	Gross Assets: 343	Debt Assets: 53	Gross Liab.: 348	Debt Liab.: 112

Current Account

Background. Finland's current account balance switched into deficit in 2011 amid the sharp decline of exports and particularly the wood and paper and electronics industries (Nokia). The deficit has averaged around -1.1 percent of GDP during the past five years. The current account balance improved in 2020 and 2021 on the back of positive trade and primary income balance. The current account is projected to revert back to a smaller surplus over the medium term, reflecting a lower trade balance. External demand conditions are projected to remain broadly supportive.

Assessment. Preliminary results from the EBA estimate a cyclically-adjusted CA of 0.5 percent of GDP and an EBA CA norm of 0.9 percent of GDP. Staff also assess the cyclically-adjusted CA to be lower than that estimated by the model due to temporary factors associated with the pandemic (-0.2 percent of GDP), suggesting a gap of -0.6 percent, which is lower compared to 2020 (-0.8). The contribution of policies to the gap is explained by looser than optimal fiscal policy and credit-to-GDP gap. Considering the normal uncertainties around the estimates, staff assess the CA gap to be between 1.5 and -0.9 percent percent.[1] The results suggest that the external position in 2021 is broadly in line with the level implied by medium-term fundamentals and desirable policies, but the results are subject to uncertainties and data revisions.

1/ A standard deviation of 1.2 percent of GDP around the cyclically-adjusted current account norm is applied to obtain the current account gap range.

Finland, Model Estimates for 2021 (in percent of GDP)			
	CA model	**REER model**	**ES model**
CA-Estimate	**0.8**		
Cyclical contributions (from model) (-)	0.3		
COVID-19 adjustor (+) 1/	0.2		
Adjusted CA	**0.3**		
CA Norm (from model) 2/	**0.9**		
Adjustments to the norm (+)	0.0		
Adjusted CA Norm	**0.9**		
CA Gap	**-0.6**	**-2.0**	**-0.6**
o/w Relative policy gap	0.9		
Elasticity	-0.3		
REER Gap (in percent)	**1.8**	**6.6**	**1.8**

1/ Additional cyclical adjustment to account for the temporary impact of the pandemic on outbound travel (-0.5 percent of GDP) and shift in household consumption composition toward tradable goods (+0.3 percent of GDP).
2/ Cyclically adjusted, including multilateral consistency adjustments.

Real Exchange Rate

Background. Measures of real exchange rates have trended downward over the years, following wage restraint and recovery in output. The CPI-based real exchange rate depreciated in 2019 by -1.7 percent and appreciated by 1.3 percent in 2020. The ULC-based real exchange rate instead declined by 1.2 both in 2019 and 2020. The CPI-based real rate has declined over the period up to October 2021. Unit labor cost have increased on average by 0.15 percent since 2016, compared to a Euro Area average of 0.4 percent.

Assessment. Preliminary estimates (as of October 2021) of the EBA level and index REER models suggest an overvaluation of 6.6 and 7.1 percent respectively in 2021, compared to 8.3 and 8.4 percent in 2019 and about 7 percent in 2020. The IMF staff CA gap implies a REER gap of 1.8 percent (applying an estimated elasticity of 0.31). Consistent with the staff CA gap, staff assesses the REER to be broadly in line with fundamentals.

Capital and Financial Accounts: Flows and Policy Measures

Background. The financial account has increased from -3.6 to -0.3 percent of GDP in 2020 on the back of higher net foreign direct investment and lower portfolio liabilities, and is expected to increase to 0.9 percent of GDP in 2021. Portfolio inflows have been increasing both in gross and net terms since 2016, particularly reflecting inflows into fixed income. Foreign direct investment inflows have outpaced outflows in 2019, but declined in 2020 and are projected to decline in 2021.The level of net external debt was 56.9 percent and has been increasing since 2016 due to the reliance of the relatively large financial sector on foreign wholesale funding. The level of short-term external debt is expected to remain stable over the medium term.

Assessment. Finland has a fully open capital account. It remains exposed to financial market risks against the background of interconnected regional financial markets.

FX Intervention and Reserves Level

Background. The euro has the status of global reserve currency.

Assessment. Reserves held by Euro area countries are typically low relative to standard metrics. The currency is freely floating.

Annex IV. Debt Sustainability Analysis

Reflecting the COVID-related measures and deficits that would persist over the medium term, public debt-to-GDP ratio is projected to be on an increasing trajectory, reaching around 73½ percent of GDP by 2026, although risks of sovereign stress are low. A contingent liability shock is the stress scenario with the greatest impact on the public debt-to-GDP ratio. Under the assumptions of this scenario, the debt ratio would reach close to 100 percent of percent of GDP by 2026.

Baseline Scenario

1. Macroeconomic assumptions. After the COVID hit in 2020, the economy is set for a strong rebound this year which is expected to continue into 2022. GDP growth expected to reach 3.4 percent in 2021 and 2.8 percent in 2022, before gradually reverting to potential growth—estimated at 1.3 percent—over the medium term. Inflation as measured by the GDP deflator is projected increase to 2.3 percent in 2021 (from 1.3 percent in 2020) and stay around 1.7 percent over the medium term. Interest rates will remain subdued in the near term and increase gradually as monetary policy begins to normalize.

2. Finland's debt level approaches 73½ percent of GDP under the baseline scenario, which calls for using the higher scrutiny framework. Public debt-to-GDP ratio is projected to be on an increasing trajectory, reflecting the COVID-related spending and persistent deficits over the medium term. In addition, the debt trajectory reflects stock-flow adjustments, including related to pre-financing of the planned fighter jets purchase. Debt is expected to reach around 73½ GDP by 2026 (rising to 74½ percent in 2027). The gross financing needs in the medium term would be around 13½ percent of GDP in the baseline scenario. However, the risks of sovereign stress (a broader concept than debt sustainability) remain low (Box IV.1).

3. Realism of baseline assumptions. Median forecast errors for the primary balance over 2011–19 (-0.36 percent of GDP, 39th percentile) and growth (-0.84 percent of GDP, 23rd percentile) have been moderate. The median forecast error for inflation (GDP deflator) has been relatively higher at 0.11 percent (66th percentile).

4. The forecast fiscal adjustment is not large in either absolute terms or in comparison to other countries' experiences. The maximum 3-year change in the cyclically-adjusted primary balance (CAPB) of 1 percent of potential output places Finland in the 41st percentile of the distribution of CAPB adjustments cross countries.

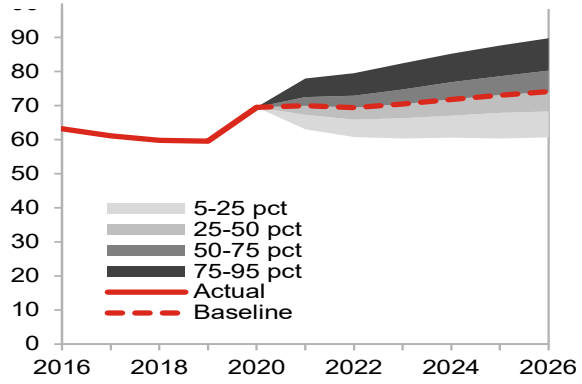
Box 1, Finland's Medium-Term Sovereign Risks

Finland's risk of sovereign stress, a broader concept than debt sustainability, can be analyzed with the new tools provided by the new DSA (MAC SRDSF) framework. The new framework is used to assess the emergence of risks in the medium term.

The medium-term risks are analyzed using two different modules: a debt fan chart, which assesses prospects for debt stabilization; and a gross financing needs module that assesses rollover risks. Under both modules, the mechanical signals assess the medium-term risks as low. According to the fan chart analysis, the probability that the primary balance required to stabilize debt at the end of the forecast horizon is lower than the primary balance under the baseline is around 95 percent. Thus, by the end of the forecast horizon, the debt will stabilize with high probability, while the debt carrying capacity, gauged by the quality of institution, is also high. The fan chart width also projects a relatively small range of outcomes, with debt level in the more likely (50–75 percentile) outcome projected at around 80 percent, and in the less likely outcome (75–95 percentile) around 90 percent of GDP (well below the contingent risk scenario in the MAC DSA). Rollover risks are also assessed to be low. Given the wide investors' base, large domestic banking sector, and the relatively low level of gross financing needs even under a stress scenario, the financing ability of Finland's public debt is high, suggesting low medium-term rollover risks.

Finland: Fan Chart

(percent of GDP)



Finland Risk of Sovereign Stress

Horizon	Mechanical signal	Final assessment	Comments
Overall		Low	Staff's assessment is that Finland overall risk of sovereign stress in the medium term is low, due to low risk of refinancing, stable spreads, relatively low debt, diversified investors' basis.
Medium term	Low	Low	The increase in debt in the baseline is from a low base, with contributing factor related to stock-flow adjustment, without which the debt increase would be slower.
Fanchart	Low		
GFN	Low		
Sustainability assessment 2/			Not required for surveillance countries
Debt stabilization in the baseline			Yes

Note: The risk of sovereign stress is a broader concept than debt sustainability. Unsustainable debt can only be resolved through exceptional measures (such as debt restructuring). In contrast, a sovereign can face stress without its debt necessarily being unsustainable, and there can be various measures—that do not involve a debt restructuring—to remedy such a situation, such as fiscal adjustment and new financing.
1/ Not applicable in nonprecautionary programs.
2/ Optional for surveillance countries.

5. Finland's debt ratio would reach close to 100 percent of GDP in the medium term in the worst shock scenario examined. For the standard macro-fiscal stress scenarios, the debt ratio rises and continues on an increasing trajectory, reaching around 85 percent of GDP by 2026. The contingent liability scenario causes the largest debt ratio increase, with gross public debt rising rapidly in 2022 when the shock is realized and then continues on a more gradual increase over the medium term, reaching close to 100 percent of GDP in 2026.

- *Real GDP growth shock:* Under this scenario, growth is one standard deviation lower than the baseline in both 2022 and 2023 (i.e., 2 percentage points lower). This also causes inflation to be around 50 basis points lower in these years. In 2023, the debt ratio would increase to about 78 percent of GDP and continues on a more gradual, but increasing path, reaching around 81 percent in 2026. The gross financing need peaks at around 16 percent of GDP in 2023.
- *Primary balance shock:* In this scenario, the primary balance is 0.7 percentage points of GDP lower than in the baseline in both 2022 and 2023. This causes the debt path to increase in those years and the debt ratio would increase thereafter, ending around 75 percent in 2026.

Gross financing needs increase somewhat during the years of the shock (around 13½ percent in 2023), but converge back to levels closer to the baseline in the medium term.

- *Real interest rate and real exchange rate shocks:* Under the real interest rate shock scenario, the effective interest rate would be higher than the baseline by around 440 basis points throughout 2022–26. Debt would be on an increasing trajectory, reaching around 77 percent by 2026. A real exchange rate shock does not have any direct impact on debt sustainability, as most of the debt is issued in euros and all foreign currency issuance is completely hedged by the Finnish State Treasury.

- *Combined macro-fiscal shock:* This scenario is a combination of the effects of the macro-fiscal scenarios above. In this scenario, growth and inflation fall, the primary balance deteriorates, the exchange rate depreciates, and interest rates rise relative to the baseline. Public debt takes a steeper upward path, reaching around 85 percent of GDP in the medium term.

- *Contingent liability shock:* This scenario could emerge from the materialization of Finland's large contingent liabilities and made more likely by the potential weakening of private sector balance sheets after the pandemic. The shock is calibrated to a primary balance increase equal to 10 percent of banking sector assets, assuming that government is forced to backstop the banking system. Additionally, growth falls as in the real GDP shock scenario and the effective interest rate rises by 4.9 percentage points by 2022. Gross debt would spike to around 91 percent in 2022 and then gradually increase over the medium term, to slightly less than 100 percent in 2026. This tail risk is mitigated by the high capitalization of Finnish banks and the introduction of MREL to support bank resolution.

Figure 1. Finland: Public Sector Debt Sustainability Analysis (DSA)—Baseline Scenario

(In percent of GDP unless otherwise indicated)

Debt, Economic and Market Indicators [1/]

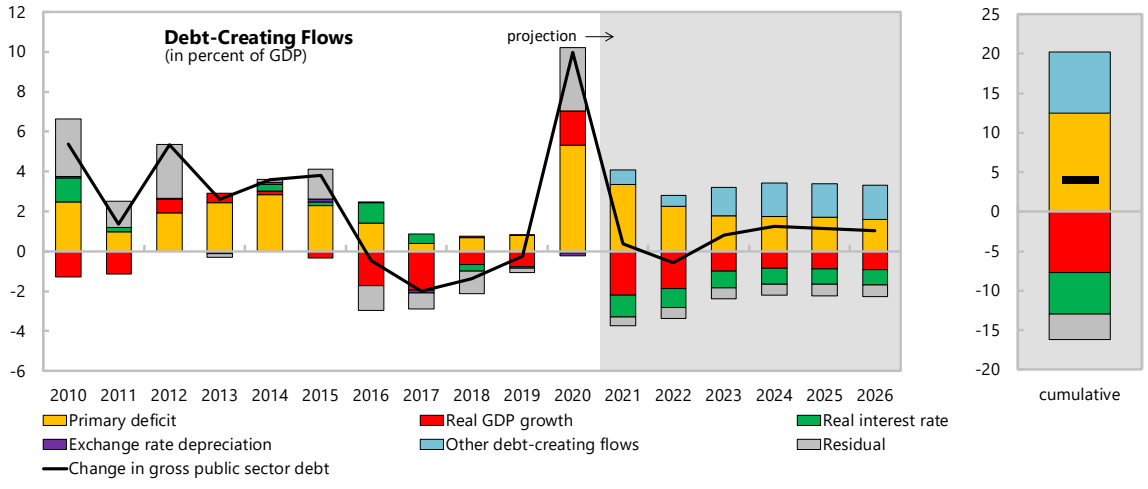
	Actual			Projections					
	2010-2018 [2/]	2019	2020	2021	2022	2023	2024	2025	2026
Nominal gross public debt	57.0	59.5	69.5	69.9	69.3	70.1	71.4	72.5	73.6
Public gross financing needs	9.6	10.9	16.7	12.4	12.1	12.6	12.8	14.3	13.4
Real GDP growth (in percent)	1.2	1.3	-2.9	3.4	2.8	1.5	1.3	1.3	1.3
Inflation (GDP deflator, in percent)	1.6	1.5	1.3	2.3	1.9	1.7	1.7	1.7	1.7
Nominal GDP growth (in percent)	2.8	2.8	-1.6	5.8	4.8	3.3	2.9	3.0	3.0
Effective interest rate (in percent) [4/]	2.3	1.4	1.1	0.8	0.6	0.5	0.5	0.6	0.6

As of October 07, 2021

Sovereign Spreads		
EMBIG (bp) 3/		29
5Y CDS (bp)		11
Ratings	Foreign	Local
Moody's	Aa1	Aa1
S&Ps	AA+	AA+
Fitch	AA+	AA+

Contribution to Changes in Public Debt

	Actual			Projections							
	2010-2018	2019	2020	2021	2022	2023	2024	2025	2026	cumulative	debt-stabilizing primary balance [10/]
Change in gross public sector debt	2.0	-0.2	10.0	0.4	-0.6	0.8	1.2	1.2	1.0	4.1	
Identified debt-creating flows	1.4	0.0	6.8	0.8	0.0	1.4	1.8	1.7	1.6	7.3	
Primary deficit	1.7	0.8	5.3	3.4	2.3	1.8	1.8	1.7	1.6	12.5	0.0
Primary (noninterest) revenue and grants	52.2	51.6	51.4	52.5	51.8	51.5	51.3	51.0	50.9	308.9	
Primary (noninterest) expenditure	53.9	52.4	56.7	55.9	54.0	53.3	53.0	52.7	52.5	321.4	
Automatic debt dynamics [5/]	-0.3	-0.8	1.5	-3.3	-2.8	-1.8	-1.6	-1.7	-1.7	-12.9	
Interest rate/growth differential [6/]	-0.3	-0.8	1.7	-3.3	-2.8	-1.8	-1.6	-1.7	-1.7	-12.9	
Of which: real interest rate	0.3	-0.1	-0.1	-1.1	-0.9	-0.8	-0.8	-0.8	-0.8	-5.2	
Of which: real GDP growth	-0.6	-0.8	1.7	-2.2	-1.9	-1.0	-0.9	-0.9	-0.9	-7.7	
Exchange rate depreciation [7/]	0.0	0.0	-0.1	...	...	...	...	...	...	...	
Other identified debt-creating flows [8/]	0.0	0.0	0.0	0.7	0.5	1.4	1.7	1.7	1.7	7.8	
#TSREF! (negative)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Stock-flow adjustment	0.0	0.0	0.0	0.7	0.5	1.4	1.7	1.7	1.7	7.8	
Residual, including asset changes [9/]	0.6	-0.2	3.2	-0.4	-0.6	-0.5	-0.6	-0.6	-0.6	-3.2	



Source: IMF staff calculations.

1/ Public sector is defined as general government.

2/ Based on available data.

3/ Long-term bond spread over German bonds.

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

5/ Derived as $[(r - \pi(1+g) - g + ae(1+r)]/(1+g+\pi+g\pi))$ times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

6/ The real interest rate contribution is derived from the numerator in footnote 5 as $r - \pi (1+g)$ and the real growth contribution as -g.

7/ The exchange rate contribution is derived from the numerator in footnote 5 as $ae(1+r)$.

8/ Reflects stock-flow adjustments, including the fighter jets program.

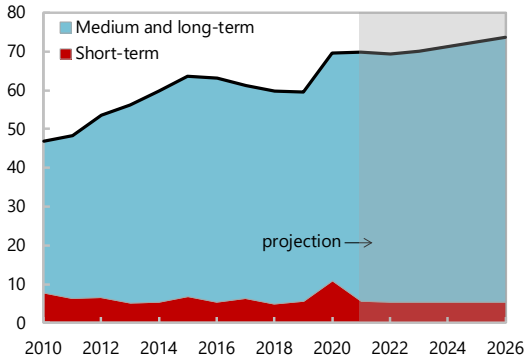
9/ Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

10/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

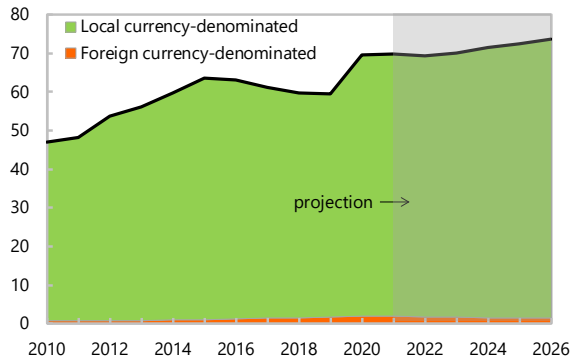
Figure 2. Finland: Public DSA—Composition of Public Debt and Alternative Scenarios

Composition of Public Debt

By Maturity
(in percent of GDP)



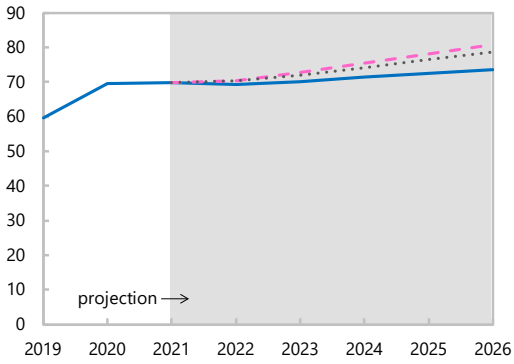
By Currency
(in percent of GDP)



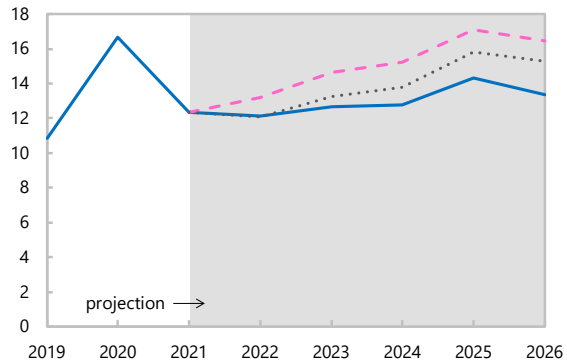
Alternative Scenarios

Baseline Historical Constant Primary Balance

Gross Nominal Public Debt
(in percent of GDP)



Public Gross Financing Needs
(in percent of GDP)



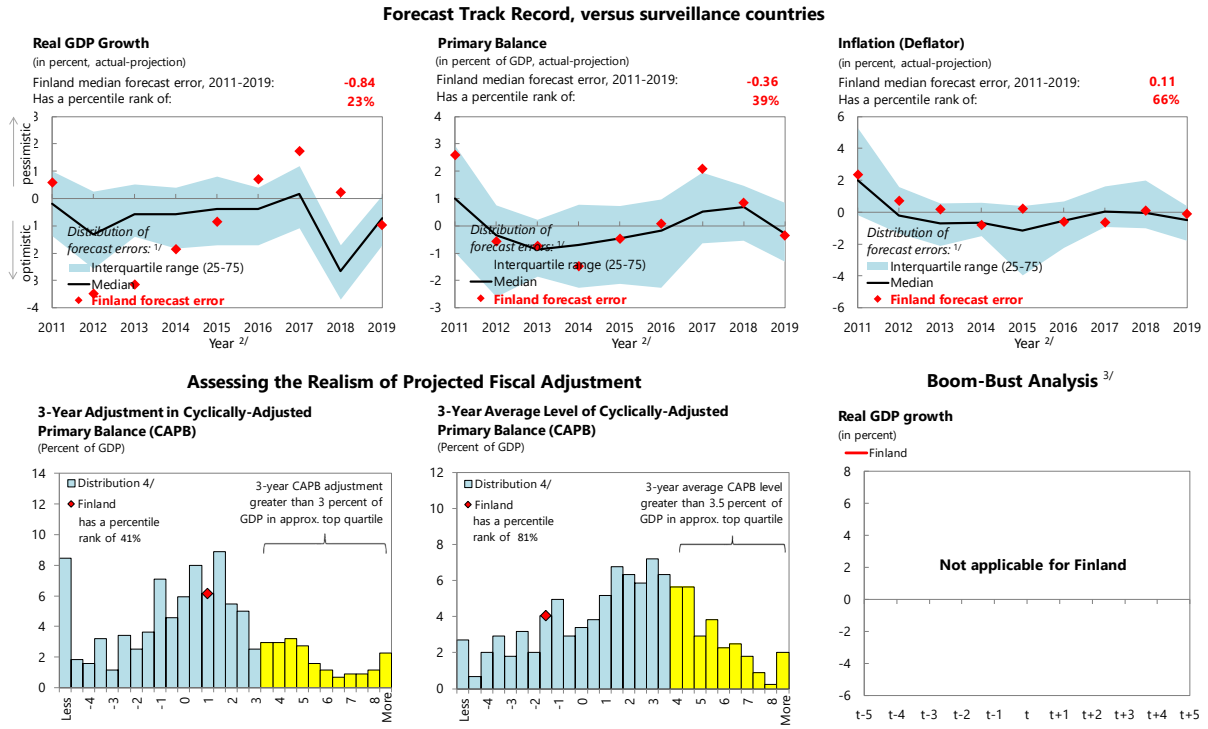
Underlying Assumptions
(in percent)

Baseline Scenario	2021	2022	2023	2024	2025	2026
Real GDP growth	3.4	2.8	1.5	1.3	1.3	1.3
Inflation	2.3	1.9	1.7	1.7	1.7	1.7
Primary Balance	-3.4	-2.3	-1.8	-1.8	-1.7	-1.6
Effective interest rate	0.8	0.6	0.5	0.5	0.6	0.6
Constant Primary Balance Scenario						
Real GDP growth	3.4	2.8	1.5	1.3	1.3	1.3
Inflation	2.3	1.9	1.7	1.7	1.7	1.7
Primary Balance	-3.4	-3.4	-3.4	-3.4	-3.4	-3.4
Effective interest rate	0.8	0.6	0.5	0.5	0.5	0.6

Historical Scenario	2021	2022	2023	2024	2025	2026
Real GDP growth	3.4	0.8	0.8	0.8	0.8	0.8
Inflation	2.3	1.9	1.7	1.7	1.7	1.7
Primary Balance	-3.4	-2.0	-2.0	-2.0	-2.0	-2.0
Effective interest rate	0.8	0.6	0.8	1.0	1.2	1.4

Source: IMF staff calculations.

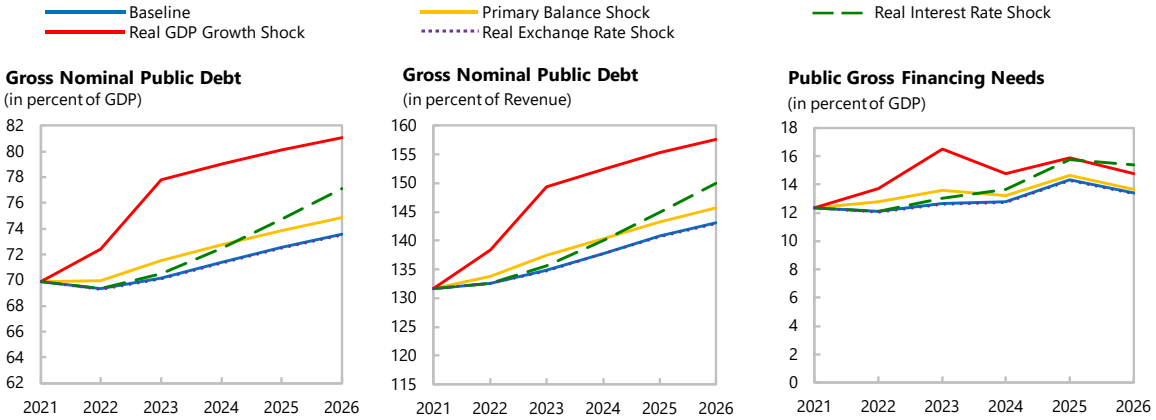
Figure 3. Finland: Public DSA—Realism of Baseline Assumptions



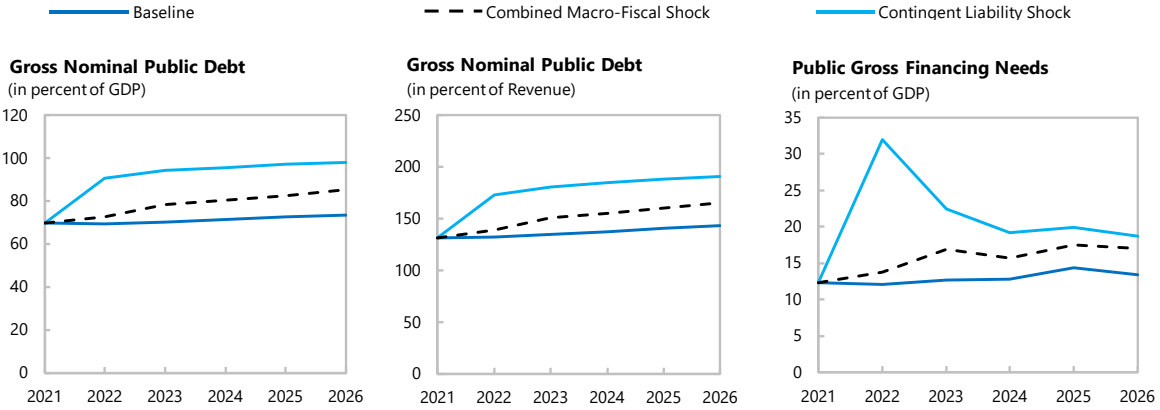
Source : IMF staff calculations.
1/ Plotted distribution includes surveillance countries, percentile rank refers to all countries.
2/ Projections made in the spring WEO vintage of the preceding year.
3/ Not applicable for Finland, as it meets neither the positive output gap criterion nor the private credit growth criterion.
4/ Data cover annual obervations from 1990 to 2011 for advanced and emerging economies with debt greater than 60 percent of GDP. Percent of sample on vertical axis.

Figure 4. Finland: Public DSA—Stress Test

Macro-Fiscal Stress Tests



Additional Stress Tests



Underlying Assumptions

(in percent)

Primary Balance Shock	2021	2022	2023	2024	2025	2026
Real GDP growth	3.4	2.8	1.5	1.3	1.3	1.3
Inflation	2.3	1.9	1.7	1.7	1.7	1.7
Primary balance	-3.4	-2.9	-2.5	-1.8	-1.7	-1.6
Effective interest rate	0.8	0.6	0.5	0.6	0.6	0.6
Real Interest Rate Shock						
Real GDP growth	3.4	2.8	1.5	1.3	1.3	1.3
Inflation	2.3	1.9	1.7	1.7	1.7	1.7
Primary balance	-3.4	-2.3	-1.8	-1.8	-1.7	-1.6
Effective interest rate	0.8	0.6	1.1	1.6	2.1	2.6
Combined Shock						
Real GDP growth	3.4	0.8	-0.5	1.3	1.3	1.3
Inflation	2.3	1.4	1.2	1.7	1.7	1.7
Primary balance	-3.4	-3.6	-4.5	-1.8	-1.7	-1.6
Effective interest rate	0.8	0.6	1.1	1.7	2.2	2.7

Real GDP Growth Shock	2021	2022	2023	2024	2025	2026
Real GDP growth	3.4	0.8	-0.5	1.3	1.3	1.3
Inflation	2.3	1.4	1.2	1.7	1.7	1.7
Primary balance	-3.4	-3.6	-4.5	-1.8	-1.7	-1.6
Effective interest rate	0.8	0.6	0.6	0.7	0.7	0.7
Real Exchange Rate Shock						
Real GDP growth	3.4	2.8	1.5	1.3	1.3	1.3
Inflation	2.3	2.3	1.7	1.7	1.7	1.7
Primary balance	-3.4	-2.3	-1.8	-1.8	-1.7	-1.6
Effective interest rate	0.8	0.6	0.5	0.5	0.6	0.6
Contingent Liability Shock						
Real GDP growth	3.4	0.8	-0.5	1.3	1.3	1.3
Inflation	2.3	1.4	1.2	1.7	1.7	1.7
Primary balance	-3.4	-21.8	-1.8	-1.8	-1.7	-1.6
Effective interest rate	0.8	0.6	1.7	1.4	1.3	1.2

Source: IMF staff calculations.

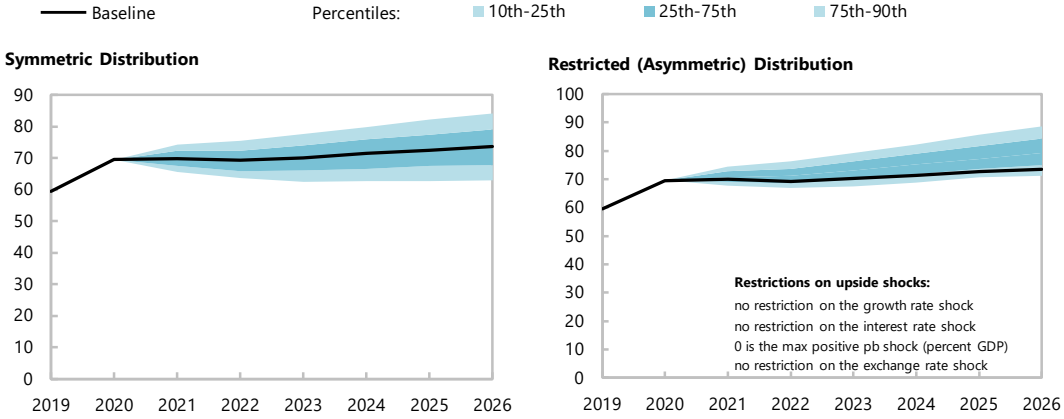
Figure 5. Finland: Public DSA Risk Assessment

Heat Map

Debt level 1/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability shock
Gross financing needs 2/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile 3/	Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

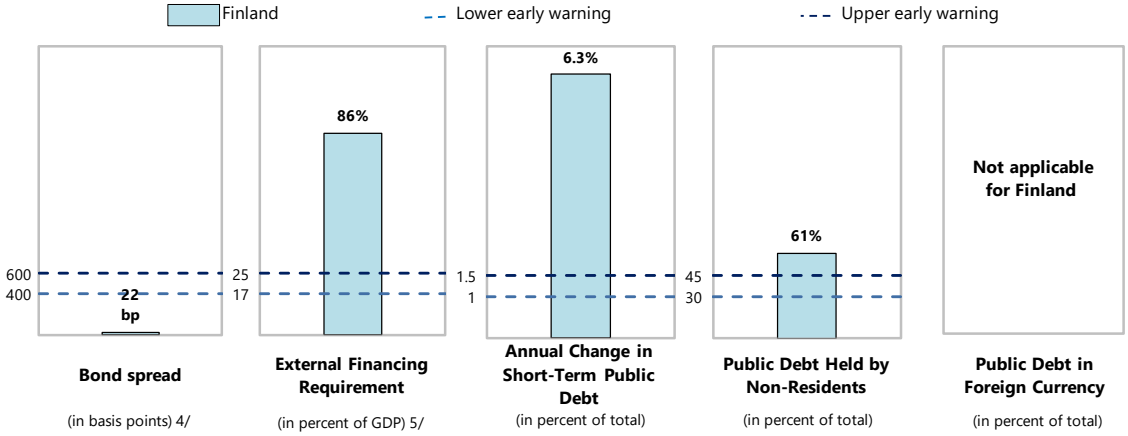
Evolution of Predictive Densities of Gross Nominal Public Debt

(in percent of GDP)



Debt Profile Vulnerabilities

(Indicators vis-à-vis risk assessment benchmarks, in 2020)



Source: IMF staff calculations.

1/ The cell is highlighted in green if debt burden benchmark of 85% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

2/ The cell is highlighted in green if gross financing needs benchmark of 20% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

3/ The cell is highlighted in green if country value is less than the lower risk-assessment benchmark, red if country value exceeds the upper risk-assessment benchmark, yellow if country value is between the lower and upper risk-assessment benchmarks. If data are unavailable or indicator is not relevant, cell is white.

Lower and upper risk-assessment benchmarks are: 400 and 600 basis points for bond spreads; 17 and 25 percent of GDP for external financing requirement; 1 and 1.5 percent for change in the share of short term debt; 30 and 45 percent for the public debt held by non-residents.

4/ Long-term bond spread over German bonds, an average over the last 3 months, 09-Jul-21 through 07-Oct-21.

5/ External financing requirement is defined as the sum of current account deficit, amortization of medium and long-term total external debt, and short-term total external debt at the end of previous period.

Annex V. Policy Measures During COVID

Fiscal Measures

Measures prompted by the coronavirus situation that will impact general government net lending (EUR billion)	2020	2021	2022
Support for enterprises: grants provided for companies by Business Finland and ELY Centres, support for solvency of sole entrepreneurs, support for catering entrepreneurs, support for agricultural and natural resource economyenterprises, general cost support for companies, estimated increase in Finnvera's loss compensation, support for public transportation, capital injection of Finavia, hybrid loan to Finnair	2.3	1.7	0.2
Extension of unemployment security: eliminating the waiting period, speeding up the layoff procedure, making entrepreneurs eligible for unemployment security, extending the payment period of startup grants, streamlining unemployment benefit payments, epidemic compensation	0.5	0.2	
Extension of social benefits: support for individuals arriving from other countries and parents of small children, temporary increase in social assistance	0.2	0.0	
Children and young people, and wellbeing of the elderly: free leisure activities, early childhood education and care, basic education and general upper secondary education, guidance counselling and youth work, student health care, ensuring properly functioning services for the elderly	0.3	0.0	0.0
Investment projects: basic transport infrastructure maintenance, developing the transport network, renovation construction, and public transport support. The sum for the year 2022 is based on a technical assumption concerning the timing of the projects.	0.3	0.1	0.1
R&D&I, competence and wellbeing: additional starting places for higher education and developing continuous learning, research appropriations for the Academy of Finland, public employment and business services and developing the service structure.	0.3	0.1	
Health and social services resources and equipment purchases, and covid-19 research	1.1	2.0	0.1
Other expenditure increases arising from the coronavirus situation	0.8	0.1	0.0
Expenditure increases total	**5.9**	**4.3**	**0.4**
Lowering of private-sector pension contributions for the period 1 May–31 December 2020. Funding will come from the EMU buffer fund of the employment pension scheme. The buffer fund will be augmented again by raising the pension contributions for the period 2022–25.	-1.1	0.0	0.3
All measures impacting revenue	**-1.1**	**0.0**	**0.3**
Total impact on net lending	**-7.0**	**-4.3**	**-0.1**
***The budgeted impacts of the measures are listed in the Table.**			

	EUR bn.
Guarantee and Loan Authorizations:	
Increasing Finnvera's domestic financing authorizations from EUR 4.2 to EUR 12 billion. About EUR 2 billion of the authorizations had been used in spring and thus the increase in the authorizations was about EUR 10 billion	10.0
Increasing Business Finland's lending authorizations, total increase for the period 2020–22	0.3
State guarantees to cover Finnair's financing needs	0.5
State guarantees to shipping companies to ensure cargo traffic important to security of supply	0.6
State guarantees for the loans granted within the framework of the European instrument for temporary Support to mitigate Unemployment Risks in an Emergency (SURE)	0.4
State guarantees for any losses arising from the Pan-European covid-19 guarantee fund to be established under the European Investment Bank	0.4
Capitalizations:	
Injecting capital into Finnish Industry Investment for the setting up of a new stability programme	0.4
Equity investment in Finnish Minerals Group	0.5
Capitalization arrangements in Finnair Plc and other state-owned companies	0.3
Easing of payment terms:	0.0
Easing of payment terms for taxes and lowering the interest on late payments from 7 percent to 2.5 percent. Assessing the impacts of the delays of 2020 and 2021 tax revenue to 2022 and 2023.	0.5
Option of postponing pension contribution payments by three months	
Other support measures:	
Bank of Finland's investments in commercial papers	1.0
Investments of the State Pension Fund in domestic commercial papers will be increased at to most of EUR 1 billion.	1.0
Easier TyEL reborrowing	
Authorizing the Financial Stability Fund to borrow funds to meet its statutory obligations concerning the deposit guarantee	2.0

Source: Ministry of Finance.

Other Measures during COVID

1. Flexibility regarding layoffs and cooperation procedures. The government strengthened the temporary layoff scheme via extended access to workers on fixed-term contracts, reduced the periods for notice and negotiation of terms and prolonged re-employment obligations (from six months to nine). These measures will remain in force until 2021.

2. Public employment services (PES). Firms were also required to report layoffs to the local public employment service (PES). There was more flexibility to unemployed in terms of benefits and job interviews.

3. Support for debtors. Temporarily limited creditors' right to petition for bankruptcy on the basis of a debtor's temporary insolvency. This measure was in force until September 2021.

Annex VI. Wage Bargaining in Finland

Finland's wage bargaining framework has become more decentralized and somewhat more flexible. But slow adjustment to macroeconomic shocks and wage compression point to limited macro- and micro-flexibility. Wage bargaining in Finland could be one where coordinated sectoral agreements set broad framework conditions but leave detailed provisions to firm-level negotiations.

1. Immediate uncertainty regarding the wage bargaining system has ebbed, but the future of the system is not settled. Finland has a long tradition of collective bargaining, but in 2020 the forest industry—one of the major industries—announced that it would no longer participate in collective bargaining, and agreements would be made at the local level. Exploring a wage bargaining framework that supports policy goals regarding employment and competitiveness is important in this context, particularly given Finland's position as a small open economy that is also in a monetary union (Bank of Finland 2019).

2. Collective bargaining system needs to deliver both macro- and micro-flexibility. Macro-flexibility refers to the ability to maintain employment at a high level in the face of large economic shocks; and micro-flexibility, the ability to (re)allocate workers to the most productive jobs across firms and industries (Blanchard, Jaumotte, and Loungani 2013). From the perspective of stable and high employment, international experience suggests two successful country groups (Duval, Shibata, and Ji 2021). The first set refers to those with decentralized bargaining. The second refers to systems that are not fully decentralized with the following key ingredients: (i) strong bargaining coordination that increases the responsiveness of real wages to changes in macroeconomic conditions (OECD 2020); (ii) firm-level flexibility in sector-level bargaining so that relative wages can accommodate firm-specific productivity shocks; (iii) representativeness of bargaining parties, including small and medium-sized enterprises; (iv) prudent use of administrative extensions that do not harm a significant fraction of firms; and (v) trust between social partners.

3. Finland's bargaining framework has evolved toward a less centralized system.

- *The system has moved from national to predominantly sectoral agreements.* Finland has had a long tradition of a three-layer system: employees' and employers' central confederations negotiating comprehensive collective settlements, which guide sectoral agreements but leave some (mostly non-wage) issues to company-level agreements. In 2007 the main confederation of employers' (EK)—lobbying for more flexibility in bargaining—declared that it would cease to negotiate wages at the central level and 2008–11 rounds were at a sectoral level. But those in 2012–15 were again negotiated centrally and, even though the EK changed its status to permanently withdraw from any peak-level negotiations, the 2016 "Competitiveness Pact" was also agreed nationally. Negotiations have been conducted at a sectoral level since 2017 though, and the influential forestry industry has abandoned sector-level wage bargaining in the current round in favor of local/firm-level bargaining.

- *Coordination has evolved to an informal system of pattern bargaining.* Coordination was strong during centrally negotiated rounds, but the system has evolved in the direction of informal coordination with the first manufacturing agreement guiding others ("pattern bargaining" — a system also present in other Nordic countries; Dølvik and Marginson 2018; and Jonker-Hoffrén 2019). The transition was bumpy. An attempt at manufacturing-led wage-anchor in sectoral negotiations in the aftermath of the Global Financial Crisis (GFC) in 2009 was unsuccessful (Jonker-Hoffrén 2019). And after the second switch to sectoral negotiations in 2017, employers representing forestry industry (potentially a first-mover in the system) rescinded its membership of EK. But the last two rounds (2017 and 2019) were relatively successful in aligning wage increases to those in export industries. The move to local-level bargaining in the forestry sector and uncertainty about the nature of the technology sector agreement (whether it is binding for the industry) complicate coordination in the current round.

- *Flexibility has increased, albeit remains somewhat limited.* The system has evolved to allow for additional enterprise bargaining in wages, typically in large firms and with sectoral agreements as a floor. More flexibility is allowed (and practiced) in non-wage provisions. In the aftermath of the "Competitiveness Pact", some union contracts included opening clauses allowing for wage reductions if the firm is in financial problems ('escape clauses'), but they have rarely been used in practice (Economic Policy Council Report 2016).

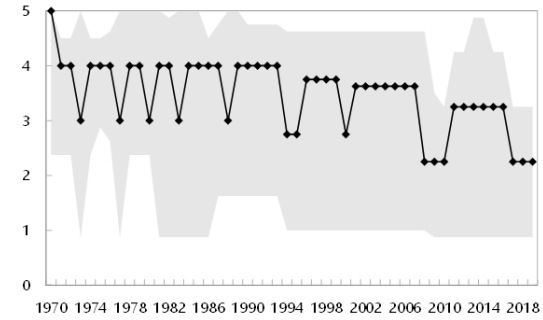
- *Representativeness is strong; administrative extensions are common.* Trade union density in Finland remains solid (despite some decline in recent years) and membership in employers' organizations remains generally strong and stable. Collective agreements are administratively extended to all companies when they are deemed representative for the sector concerned (typically when more than 50 percent employees are covered), resulting in the very high coverage of collective agreements.

Wage Bargaining Framework in Finland

Finland's system has become less centralized over time...

Centralization: FIN 1/

(1-5, where 5 is most centralized)

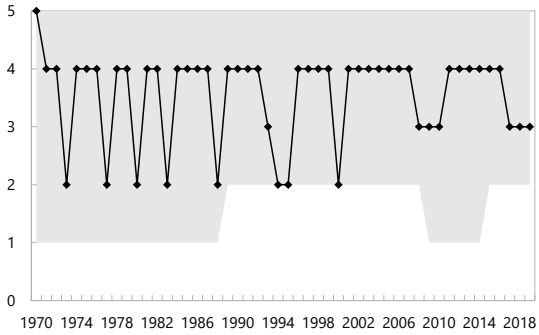


Source: OECD/AIAS ICTWSS.
1/ Shaded shows min-max across select European countries.

The level of coordination has declined somewhat after the transition from centralized negotiations to pattern bargaining.

Coordination of Wage Setting: FIN

(1-5, 1=no coordination, 5=binding norm)

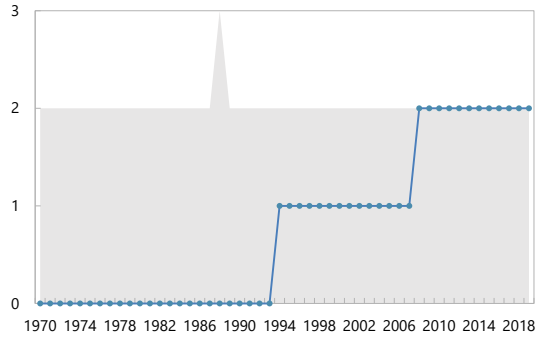


Sources: OECD/AIAS ICTWSS.

There has been greater scope, over time, for additional enterprise bargaining in wages...

Reach of Additional Enterprise Bargaining: Finland

(0-3, 0 = none, 3 = more common)

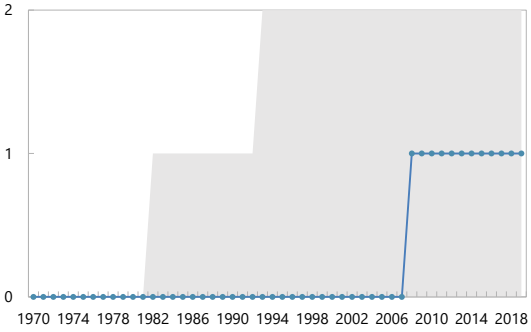


Sources: OECD/AIAS ICTWSS.

...and the use of opening clauses.

Opening Clauses in Sectoral Agreements: Finland

(0-2, 0 = none, 2 = renegotiation of contractual wages at enterprise level).



Sources: OECD/AIAS ICTWSS.

4. Finland is now among countries with systems classified by OECD as "organized decentralized and coordinated", which tend to produce good labor market outcomes. These systems are associated with an important role for coordinated sector-level agreements to set the standards while leaving significant room for lower-level agreements. Empirical results (OECD 2020) indicate that such systems—with many features of the second (not fully decentralized) successful country group in ¶2—are generally associated with higher employment and lower unemployment even relative to fully decentralized systems.

5. But Finland's labor market performance has been weaker than in other countries in the group and theory suggests that differences in bargaining systems could have played a role. Unemployment rate in Finland has been higher in the aftermath of the Global Financial Crisis (and other shocks in 2000s) than in Denmark and Sweden (Nordic countries that are most like Finland in terms of economic structure) or in Germany (regarded as an example of post-GFC labor market resilience, Dustmann and others 2014). While these outcomes cannot be solely traced to differences in wage bargaining systems, theoretical results indicate that the degree of

coordination and additional wage flexibility could have been a factor. According to the Calmfors-Driffill hypothesis, trade unions better internalize inflationary and unemployment effects of wage increases in centralized (or coordinated) negotiations improving labor market outcomes (Calmfors and Driffill 1988). More recent research emphasizes the role of additional flexibility, indicating that introducing efficient opting-outs to higher-level agreements could improve unemployment outcomes (Jimeno and Thomas 2013).

- *Finland's system is now less coordinated than some other countries in the group, reflecting the less formal sectoral bargaining in recent rounds*. In Denmark and Sweden, bargaining frameworks operate within a better-defined structure, with manufacturing sector negotiations setting the benchmark for wage increases in other sectors (Andersen et al. 2015). Peak employers' and employees' organizations do not participate in wage negotiations directly, but they marshal consent for the coordination pattern. In both, national mediation offices play an important role in pegging other settlements to wage increases in manufacturing by providing information on wages and current collective agreements, and mediating disputes (Ibsen 2015). Importantly, in Denmark public sector wages are subject to an adjustment mechanism linking them to those in the private sector (in Sweden public sector wages are largely determined in individual contracts) (Andersen et al. 2015).

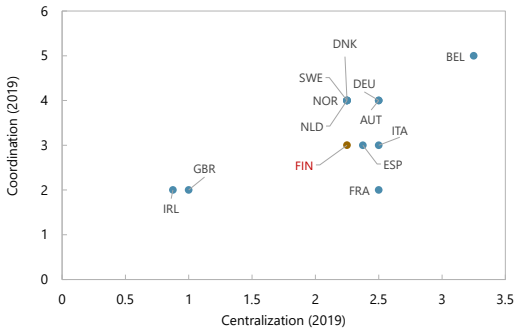
- *Wage rigidities in Finland are high, reflecting more limited use of lower-level agreements and open clauses*. Even though the reach of additional enterprise bargaining in Nordic countries appears extensive, wages appear more flexible in Denmark than in Sweden and Finland (Dickens et al. 2007; World Economic Forum 2020 database). In Denmark, most wages are negotiated individually, subject to collective bargaining agreements guaranteeing only a low minimum wage or non-wage standards (Ibsen and Keune 2018). Sweden has moved in the same direction, but minimum wage standards set in collective agreements are relatively high and sectoral agreements often specify increases in total wage bills (with the distribution of wage increases left to company-level negotiations).[1] In Finland, as discussed above, the room for additional company/individual wage bargaining has in practice been restricted. In Germany, wage flexibility has been provided through 'escape' clauses—credited for the strong post-GFC labor market performance (Dustmann and others 2014).

[1] See Andersen et al. (2015) and http://perseus.iies.su.se/~calmf/summary_report_no2.pdf.

Wage Bargaining Framework in Finland: Cross-Country

Finland's system is less coordinated relative to peers.

Wage Bargaining Framework

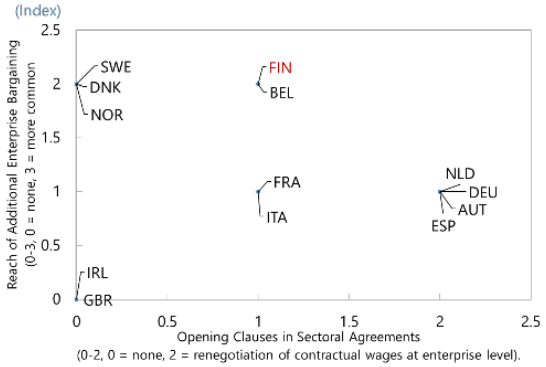


Source: OECD ICTWSS 2021

Its system features opening clauses and additional enterprise bargaining.

Flexibility in Labor Contracts

(Index)

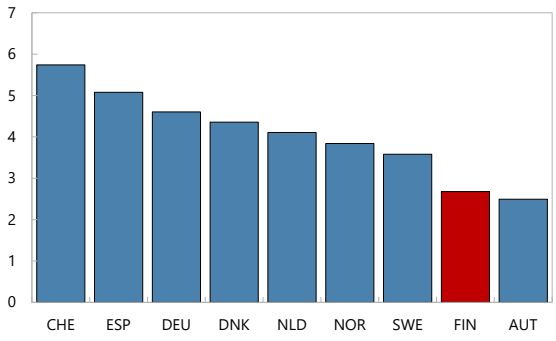


Sources: OECD/AIAS ICTWSS.

But wage flexibility is less limited than in peers...

Flexiblity of Wage Determination

(Index 1-7; 7 = Best; 2019)

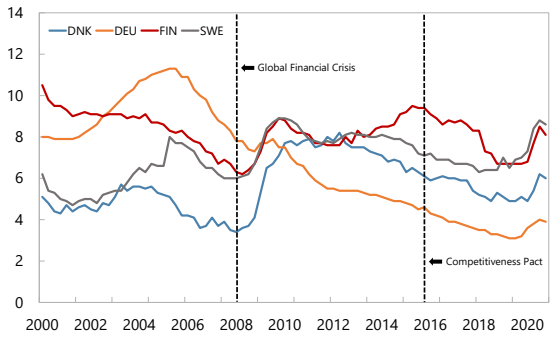


Source: World Economic Forum.

...and unemployment outcomes have been worse.

Unemployment Rates

(Age 15-74; Percent of population in labor force)



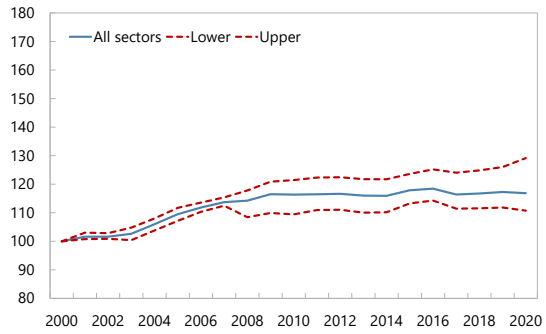
Sources: Eurostat.

6. Wage compression may be hindering micro-level efficiency. Wages in Nordic countries—Finland and Sweden in particular—have been highly compressed, which to some extent is an intended effect of a strongly coordinated system and a sign of inclusiveness. Setting higher wage floors may force unproductive firms to exit the market and increase aggregate productivity (Braun 2011), and there is some evidence that such a mechanism could have been a factor contributing to a reallocation of labor toward higher value-added sectors in Sweden (Hibbs and Locking 2000). But wage compression may still distort market signals and lead to a misallocation of resources, for instance by weakening incentives for skill acquisition. The estimated link between wages and productivity is indeed low for all Nordic countries (OECD 2020). Wage compression can also effectively introduce a relatively high minimum wage and discourage hiring of low productivity employees (such as the youth and the low-skilled). This suggests that—within a system of coordinated bargaining—additional flexibility in wage determination is likely to improve productivity and labor market outcomes.

Wage Compression and Wage-Productivity Alignment

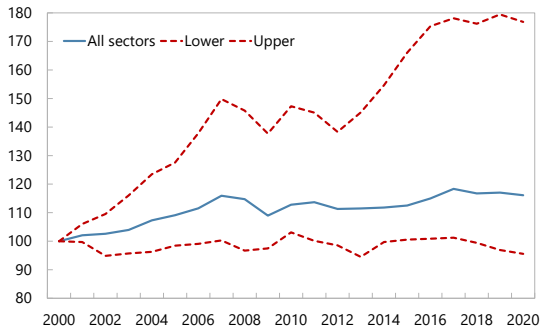
Finland's relatively centralized wage bargaining system has resulted in wage-productivity misalignment across sectors…

Real Wage in Finland: Sectoral Dispersion
(Index, 2000 = 100)



Sources: OECD, Haver, IMF staff calculations.

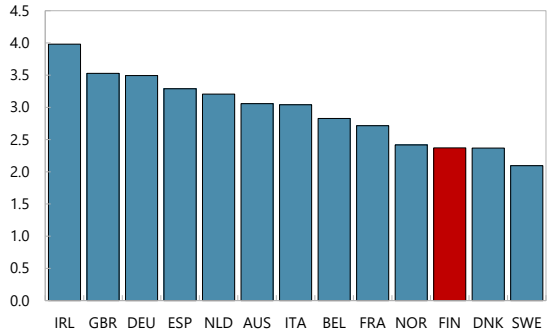
Real Productivity in Finland: Sectoral Dispersion
(Index, 2000 = 100)



Sources: OECD, Haver, IMF staff calculations.

…and wage compression…

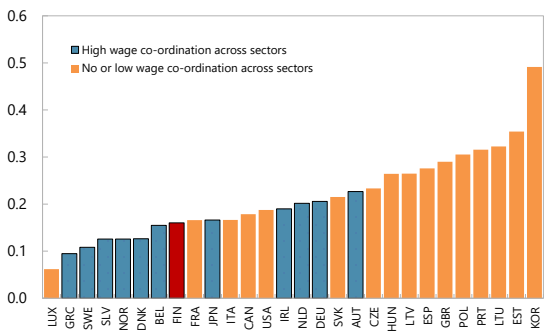
Wage Dispersion
(D9/D1 Ratio, 2018)



Sources: Eurostat, IMF staff calculation.

…with weak link between wages and productivity.

Elasticity of Wages w.r.t. Productivity Across Sectors
(Percent)



Source: OECD (2020).

7. To support employment and productivity, staff recommend a system where high-level agreements set broad framework conditions in wage bargaining, but with more flexibility in firm-level contracts.

- First, there is a need for a better-established pattern bargaining, possibly with the help of a mediation body. Previous experience suggests that the emerging system of informal manufacturing-led coordination (similar to the 2009–11 experience) may not be well suited to the purpose of responding to macroeconomic shocks. Such a system could possibly provide a mechanism aligning private and public sector wages.

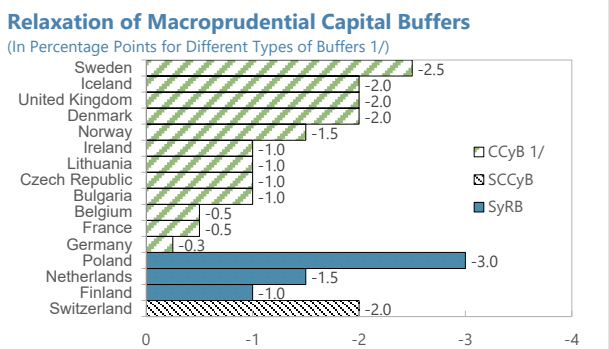
- Second, within the pattern bargaining system, there should be scope for greater wage flexibility in firm-level contracts to improve labor market outcomes and productivity. Additional scope for wage bargaining at the company level (as in Denmark) would help moving in this direction. Opening clauses that include renegotiation of wages could also be considered if more flexibility is needed, even though in Germany this has been associated with declining unionization and less cross-industry coordination (Müller and Schulten 2019).

Annex VII. Towards a Positive Neutral Countercyclical Capital Buffer

A positive neutral countercyclical capital buffer (CCyB)—which could lower implementation costs and provide insurance against financial stability risk measurement uncertainty—would provide policy space to address the materialization of time-varying risks. Macroprudential stress testing is crucial for calibrating capital-based tools and can help in calibrating the CCyB.

1. Finland's pre-pandemic macroprudential policy setting reflected the macrofinancial risks posed by the banking sector's structural risks. In addition to a capital conservation buffer of 2.5 percent for all credit institutions, the FIN-FSA Board had introduced: (i) O-SII buffer requirements of 2.0, 2.0, and 0.5 percent for the three systemically important banks (SIs), Nordea, OP Group, and Municipality Finance, respectively; (ii) SyRB requirements of 3.0, 2.0, and 1.5 percent for the three systemically important banks as well as a SyRB requirement of 1.0 percent for all other credit institutions; and (iii) effective January 2018, a risk weight floor, pursuant to Article 458 of the CRR, of 15 percent for Finnish housing loans for banks that use internal ratings based (IRB) models.[1] On the credit demand side, a cap of 85 (95) percent on the loan to collateral (LTC) ratio was in force for housing loans (first-time homebuyers). As the pandemic struck, these measures were relaxed (¶7, ¶30).[2]

2. There has been a large and widespread global relaxation of capital buffer requirements to increase lending and loss-absorbing capacity during the pandemic. Many countries relaxed their CCyB requirements—Finland's Nordic peers, Denmark, Norway, and Sweden all relaxed their CCyB requirements and/or cancelled planned increases. Other jurisdictions, including the Netherlands, relaxed structural buffer requirements, though this tool was less used. In Europe, capital was also preserved by suspending dividend payments and share buybacks as well as regulatory relief from the temporary relaxation of some CRR provisions. These actions were taken in conjunction with large fiscal and monetary support which likely increased their effectiveness.



Sources: IMF Policy Tracker, MCM FR's database, Yale Porgram on Financial Stability, country authorities' websites, staff calculations.
1/ The figure shows the reduction from the previously announced level of the CCyB regardless of whether it had become effective or not.
2/ Finland reduced structural capital requirements by 1 percent across institutions.

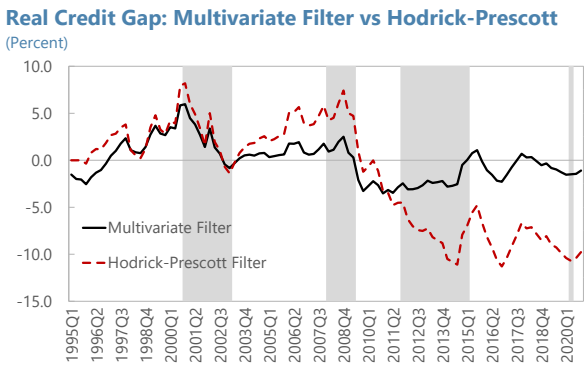
[1] There were also reciprocated measures—including CCyB requirements, risk weight floors for Swedish and Norwegian residential real estate loans, and risk weight floors for Norwegian commercial real estate loans—that had been set by designated authorities in other jurisdictions.

[2] The FINFSA Board decided not to extend the validity, scheduled to expire January 1, 2021, of its 15 percent risk weight floor on residential mortgage loans. The SRB was completely removed in anticipation of reforms to the macroprudential regulatory environment present in the CRD V/CRR2 EU banking package. The reforms include, inter alia: a minimum leverage ratio of 3 percent; reforms to align MREL more closely with the total loss absorbing capacity (TLAC) standard; clarity for Pillar 2 guidance; and additive applications of SRB and O-SII buffer requirements.

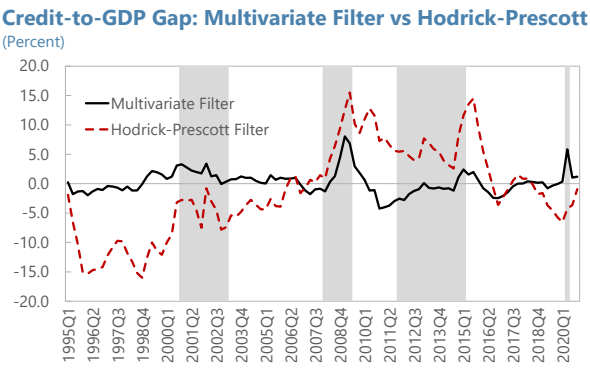
Motivating a positive neutral CCyB rate

3. Dynamic financial stability risk measurement is difficult and inherently uncertain, making it difficult to map policy decisions to observable metrics. The charts below plot estimates of a real credit gap from a multivariate filter approach developed by Baba et. al, 2020 compared with one-sided HP filters of credit (BIS, 2010).[3] The differences between the approaches are quite pronounced, particularly at the end point, and could cause the formation of different real-time views on the leverage cycle. Indeed, several jurisdictions had activated the CCyB despite negative Basel credit gaps (Baba et. al, 2020). Also, early warning indicators do not always signal an impending crisis. IMF (2014) guidance suggests using a range of indicators rather than a mechanical application of the credit gap. But a dashboard approach can be difficult to communicate.

Alternative Credit Gap Estimates 1/



Source: IMF staff calculations



Source: IMF staff calculations

1/ See Baba et. al, 2020. In the MVF, the credit gap is estimated jointly with output (IS curve), inflation (Phillips curve), policy interest rates (Taylor rule), real interest rates (Fisher equation), and the real exchange rate.

4. The financial system can amplify shocks that are unrelated to the leverage cycle. A large literature documents the importance of the financial accelerator mechanism in transmitting business cycle shocks. The pandemic provides recent evidence of a shock unrelated to the financial cycle that was amplified via the financial system. Several mechanisms in the academic literature have been explored to illustrate the importance of the accelerator: pecuniary externalities (Kiyotaki and Moore (1997), Dávila and Korinek (2018), Bianchi and Mendoza (2018)), net worth channels (Bernanke & Gertler, 1999; Gertler & Kiyotaki, 2010), rollover crises (Gertler et. al, 2020).

5. A positive neutral CCyB is consistent with a gradual adjustment approach, and hence with lower implementation costs. Regulators in some European jurisdictions—including the Czech Republic, Lithuania, Slovakia, and the UK—have introduced a positive neutral CCyB on this basis. For instance, the FPC of the UK noted that a positive neutral rate is consistent with raising

[3] BCBS initial guidance proposed using the credit gap as a reference variable for assessing the build-up of systemic risks and activating the CCyB (Drehmann et. al (2010, 2011)).

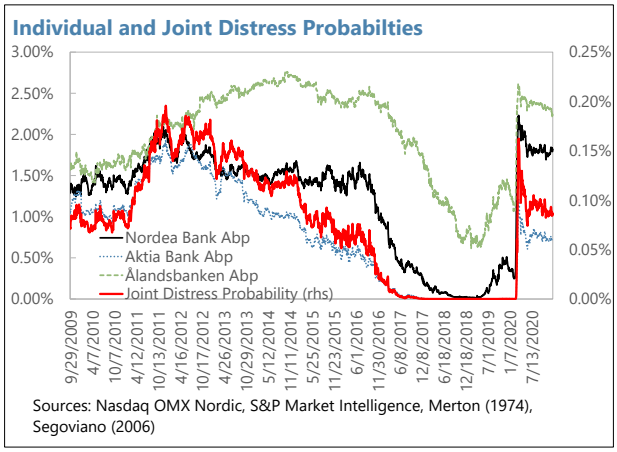
the buffer in a gradual manner before risks materialize, a strategy that is more robust to implementation lags. Building up capital rapidly could be more expensive for banks and procyclical as banks adjust to new requirement levels by restricting credit provision and disposing of risky assets.

6. Capital buffer releases have been shown to support the provision of credit. ECB analysis indicates that capital requirement releases at the onset of the pandemic supported credit growth, particularly lending to small- and medium-sized enterprises, and reduced lending rates. Banks closer to minimum combined buffer requirements showed more procyclical adjustments to lending, risk weight adjustments, and lending standards. These experiences highlight the support that capital-based macroprudential policy tools can provide beyond their primary function of building resilience and pricing externalities.

A Roadmap for Calibrating a Positive Neutral CCyB Rate

7. The calibration of the CCyB should explicitly consider nonlinearities inherent in risk propagation mechanisms. Macroprudential stress testing can help in this regard (Bennani et. al, 2017; Couallier & Scalone, 2021). Alla et. al (2018) propose a reduced-form macroprudential stress-testing approach based on the Consistent Information Multivariate Density Optimization (CIMDO) approach of Segoviano (2006). The framework estimates systemic risk amplification mechanisms and uses an asset valuation model (Merton, 1974) to estimate banks' expected values and losses that might occur under an adverse scenario and/or in the event of distress of any other bank in the system. Therefore, losses due to these amplification mechanisms that are estimated with market data capture market perceptions of direct and indirect contagion without the need to explicitly model agent behavior and market structures which can change unexpectedly in periods of distress.

8. An asset valuation model is used to compute losses conditional on the distress of other banks in the system. Individual distress probabilities for three Finnish banks—Nordea Bank Abp, Ålandsbanken, and Aktia Bank—are estimated using MATLAB's Merton Model and data on market capitalization and balance sheet information for these financial institutions.[4] These banks comprise roughly 67 percent of total banking sector assets. With the estimated multivariate density and balance sheet data, we make use of the asset valuation



[4] Directly observed market-based default risk, extracted from Credit Default Swap prices for example, could also be useful, but unfortunately is only available for Nordea Bank. OP Group and Municipality Finance, the other systemically important institutions, are not publicly traded companies. But supervisory estimates of bank PDs could be used in lieu of these. Equity return data is available at a daily frequency from S&P Market Intelligence. Data choices across variables are constrained by the availability of public data.

model of Alla et al., (2018) to estimate conditional valuations of individual institutions in the system at various points in time with marginal distress probabilities backed out from the CIMDO density. Balance sheet data for the conditional loss estimates for the three banks in our sample is retrieved from S&P Market Intelligence at a quarterly frequency from 2008Q4–2020Q4. To illustrate the macroprudential nature of this approach, one can define the difference between the value of a given bank, A, in normal times, and its value under an adverse macroeconomic scenario (e.g., the global financial crisis or the pandemic):

$$\text{Loss}_U(A) = E(V_A) - E(V_A|\text{adv})$$

where the expectation is taken with respect to the measure over banks' asset values. Denote the realization of a given financial contagion event (e.g., the distress of a credit institution) by S. The loss due to systemic risk amplification is defined as:[5]

$$\text{Loss}_{\text{SR}}(A|S) = E(V_A|\text{adv}) - E(V_A|\text{adv} \cap S)$$

and the total loss is the sum of these two:

$$\text{Loss}_{\text{TS}}(A|S) = \text{Loss}_U(A) + \text{Loss}_{\text{SR}}(A|S)$$

$$= E(V_A) - E(V_A|\text{adv} \cap S)$$

9. These conditional loss estimates can be used to calibrate buffer requirements. The proposed approach to calibrating the CCyB is to estimate the difference between each bank's losses conditional on distress in the other banks during normal times and in recessions. For the sample period covered, the major downturns are the global financial crisis, the European sovereign debt crisis, and the onset of the pandemic:[6]

$$\text{Added LAC} = [E(V_A|\text{rec}) - E(V_A|\text{rec} \cap S)] - [E(V_A|\text{normal}) - E(V_A|\text{normal} \cap S)]$$

The intuition here is that the regulator might desire extra loss absorbing capacity for losses that banks might face in a sizable downturn *and* conditional on a contagion event *above* the losses that banks might face conditional on a contagion event even in a baseline macroeconomic setting. With a longer time-series, a tighter calibration could involve distinguishing between 'typical' recessions and larger downturns of the kind experienced by Finland since the global financial crisis. Structural and cyclical buffer requirements can be estimated separately in this framework. Structural buffer requirements could be calibrated using the average 'received' losses faced by banks in the system, conditional on the distress of other banks in the system, in normal times. This would capture the sum of macroprudential requirements above the Pillar 1 minimum

[5] It is important to note that these are *conditional* losses rather than losses *caused* by the contagion event.

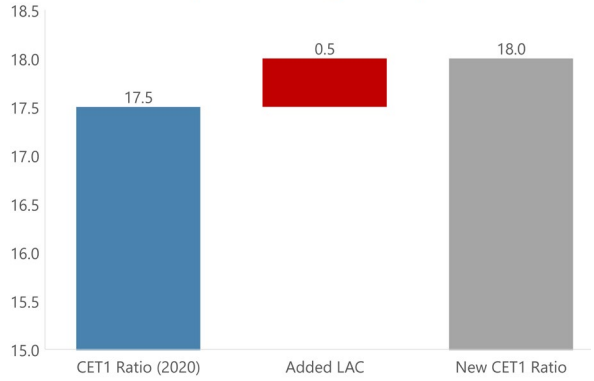
[6] Finland's economic recovery following the global financial crisis was prolonged by the decline of its information and communications technology, and paper and pulp industries, as well as adverse demographics and low productivity growth. Finland finally exited the recession in 2016.

of 8 percent and any Pillar 2 bank-specific add-ons yet be distinct from the positive neutral CCyB defined as the average added LAC described above.

10. Our estimates indicate a positive neutral CCyB rate of roughly 0.5 percent. Having computed the difference in conditional losses for each bank, we compute a weighted average across banks in the system, weighting by total assets.[7] Because these losses are computed in percent of total assets, risk weight adjustments are needed. For simplicity, we use either the average risk weight for each bank over the sample or the end-of-sample risk weights. Thus, assuming banks maintain management buffers, the aggregate CET1 ratio would increase by 0.5 percentage points. In our formulation, this results in average structural buffer requirements of 6 percent. In sum, this calibration suggests a total macroprudential buffer level of 6.5 percent in normal times.

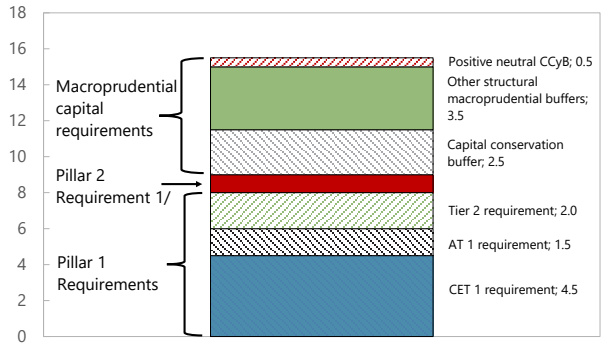
Calibrated Capital Stack

Extra Loss-Absorbing Capacity
(Percent of risk weighted assets)



Source: IMF Staff Calculations

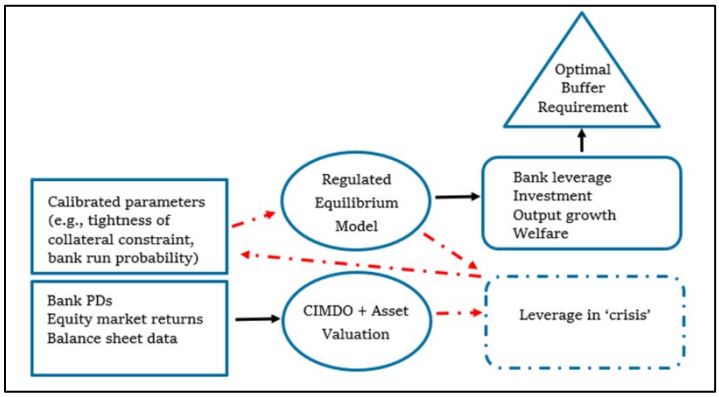
Regulatory Capital Stack
(Percent of risk wieghted assets)



Sources: FIN-FSA, IMF staff calculations
1/ These are bank-specific add-ons.

Conclusion and Next Steps

11. A fully general equilibrium approach would facilitate welfare analysis. Raising capital can be costly and impinge on bank profitability and tighter capital requirements could raise economy-wide borrowing costs. A welfare optimizing social planner would include these considerations in choosing structural buffer requirements and an optimal positive neutral CCyB rate. Nevertheless, the methodology described above can be used to discipline models that are used to characterize macrofinancial relationships. For example, the change in



[7] Alla et al., (2018) show that the conditional loss estimate given the distress of one bank in the system can be decomposed into losses due to distress events of the various combinations of all the other banks in the system. Therefore, one alternative could be to use the largest conditional loss expected by a given bank.

expected losses in a typical historical adverse shock could be used as a conditional moment with which to calibrate a non-linear dynamic stochastic general equilibrium model. The modeling approach would determine which loss definition is more appropriate. For instance, in models that feature pecuniary externalities and net worth channels, the loss in valuation from the baseline to the adverse would be the appropriate target. In the bank run externality framework (Espinoza et. al, 2020, and Gertler et. al, 2020), a more appropriate target would also condition on distress in one or more banks in the system.

INTERNATIONAL MONETARY FUND

FINLAND

STAFF REPORT FOR THE 2021 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

January 7, 2021

Prepared By

European Department
(In Consultation with Other Departments)

CONTENTS

FUND RELATIONS

As of November 30, 2021

Membership Status: Joined: January 14, 1948; Article VIII.

General Resources Account:	**SDR Million**	**Percent Quota**
Quota	2,410.60	100.00
Fund holdings of currency (Exchange Rate)	1,810.87	75.12
Reserve Tranche Position	599.73	24.88
Lending to the Fund		
New Arrangements to Borrow	26.79	

SDR Department:	**SDR Million**	**Percent Allocation**
Net cumulative allocation	3,499.96	100.00
Holdings	3,426.23	97.89

Outstanding Purchases and Loans: None

Latest Financial Arrangements: None

Projected Payments to Fund [1]
(SDR Million; based on existing use of resources and present holdings of SDRs):

	Forthcoming				
	2021	2022	2023	2024	2025
Principal	...	...	...	...	...
Charges/Interest		0.10	0.10	0.10	0.10
Total		0.10	0.10	0.10	0.10

[1] When a member has overdue financial obligations outstanding for more than three months, the amount of such arrears will be shown in this section.

Exchange Arrangements: The currency of Finland is the euro. The exchange rate arrangement of the euro area is free floating. Finland participates in a currency union (EMU) with 18 other members of the EU and has no separate legal tender. The euro, the common currency floats freely and independently against other currencies.

Finland has accepted the obligations under Article VIII, Sections 2(a), 3, and 4, and maintains an exchange system free of multiple currency practices and restrictions on the making of payments and transfers for current international transactions, except for those measures imposed for security reasons in accordance with Regulations of the Council of the European Union, as notified to the Executive Board in accordance with Decision No. 144-(52/51).

Article IV Consultation: The last Article IV consultation was concluded by the Executive Board on January 9, 2020. The staff report (IMF Country Report No. 20/5) was published with Press Release No. 20/008 (January 16, 2020).

Outreach: The team met with representatives of the private sector, academics, labor, and financial institutions.

Press conference: The mission held a press conference on November 19, 2021.

Publication: The staff report will be published.

Technical Assistance: None.

Resident Representative: None.

STATISTICAL ISSUES

Data Provision is adequate for surveillance. The country has a full range of statistical publications, many of which are on the internet. The quality and timeliness of the economic database are generally very good. The country subscribes to the Fund's Special Data Dissemination Standard Plus. The country uses SDDS flexibility option for timeliness on data for central government operations. Metadata are posted on the Dissemination Standards Bulletin Board.

National Accounts: Finland publishes the national accounts according to the European System of Accounts (ESA) 2010 since September 2014.

Government Finance Statistics: Government finance statistics were published based on ESA 2010 methodology since September 2014.

External Statistics: Finland publishes external sector statistics based on the sixth edition of the *Balance of Payments and International Investment Position Manual (BPM6)* format since December 2014. Finland has completed the requirements for adherence to the IMF's Special Data Dissemination Standard (SDDS) Plus in 2018—the highest tier of the Data Standards Initiatives. However, Finland does not yet produce detailed external debt statistics. This means that the external debt sustainability exercise, which is a mandatory assessment for the IMF article IV, could not be carried out.

Monetary and Financial Statistics: Monetary data reported for *International Financial Statistics* are based on the European Central Bank's (ECB) framework for collecting, compiling, and reporting monetary data.

Finland: Common Indicators Required for Surveillance

(As of November 30, 2021)

	Date of latest observation	Date received	Frequency of Data[7]	Frequency of Reporting[7]	Frequency of publication[7]
Exchange Rates	11/30/2021	11/30/2021	D	D	D
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	10/2021	11/2021	M	M	M
Reserve/Base Money	10/2021	11/21	M	M	M
Broad Money	10/2021	11/21	M	M	M
Central Bank Balance Sheet	10/2021	11/21	M	M	M
Consolidated Balance Sheet of the Banking System	10/2021	11/21	M	M	M
Interest Rates[2]	11/29/2021	11/30/2021	D	D	D
Consumer Price Index	10/2021	11/21	M	M	M
Revenue, Expenditure, Balance and Composition of Financing[3]––General Government[4]	2020	09/2021	A	A	A
Revenue, Expenditure, Balance, and Composition of Financing[3]––Central Government	2020	09/2021	A	A	A
Stocks of Central Government and Central Government-Guaranteed Debt[5]	09/2020	10/2021	M	M	M
External Current Account Balance	09/2021	11/2021	M	M	M
Exports and Imports of Goods and Services	10/2021	11/2021	M	M	M
GDP/GNP	2021:Q3	11/2021	Q	Q	Q
Gross External Debt	2021:Q2	10/2021	Q	Q	Q
International Investment Position[6]	2021:Q2	10/2021	Q	Q	Q

1/ Includes reserve assets pledged or otherwise encumbered as well as net derivative positions.
2/ Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes, and bonds.
3/ Foreign, domestic bank, and domestic nonbank financing.
4/ The general government consists of the central government, including National Insurance Scheme, and local governments.
5/ Including currency and maturity composition.
6/ Includes external gross financial asset and liability positions vis-à-vis nonresidents.
7/ Daily (D), weekly (W), monthly (M), quarterly (Q), annual (A), irregular (I); and not available (NA).

Statement by Mr. Pösö and Mr. Kraavik on Finland
January 26, 2022

On behalf of the Finnish authorities, we thank the mission team led by Wojciech Maliszewski for the candid and constructive discussions and the well-balanced Article IV Report. The mission was conducted under exceptional pandemic circumstances and took place both virtually and in person. The authorities highly appreciate staff's views on economic context, outlook, risks, and policy priorities, which contribute to the policy debate in Finland. The authorities agree with the thrust of staff's appraisal and agree that further efforts are required to combat medium and long-term challenges.

Recent Economic Developments, Outlook, and Risks

The Finnish economy has recovered swiftly from the downturn in 2020 and reached the pre-pandemic level of output in the second quarter of 2021. Both fiscal and monetary policy have strongly supported growth, and the recovery has been driven mainly by strong domestic demand. The economy has suffered less from the pandemic than many other countries due to the successful containment of the spread of COVID-19 prior to the latest wave of infections, and the relatively small share of contact-intensive sectors in the economy. On the health front, Finland has undertaken a vaccination campaign with 83 percent of people aged 12 and above being fully vaccinated. This has helped limit the number of hospitalizations, but economic growth is expected to be slow in the first quarter of this year due to the record caseloads caused by the Omicron variant.

The labor market has also recovered briskly. Labor market policies implemented in the early phase of the COVID-19 crisis, including easing the terms of temporary lay-offs and a reduction in employers' social security contributions, helped to cushion the impact on the labor market. The employment rate reached its pre-pandemic level in late 2021, and unemployment remains only slightly above its pre-pandemic rate. Employment is expected to keep improving, albeit at a slowing pace. Labor shortages, regional and skill mismatches in the labor market, and other production bottlenecks will limit employment and output growth.

The effects of the pandemic are still being felt across the economy, and this includes higher inflation, mostly driven by increases in energy prices. Robust disposable income growth in 2021 and savings accumulated by Finnish households during the pandemic have prompted a strong recovery in demand. In the near term, global supply disruptions and high raw material prices further accelerate inflation. While inflation has turned out to be faster than previously forecast, it is below the euro area average and it is expected to decelerate in the course of this year as many of the factors driving inflation gradually abate. In the recent collective wage agreements, completed in late 2021 and early 2022, no clear signs of second-round effects of inflation have been observed, suggesting that inflation expectations have remained anchored in Finland.

Although the pandemic continues to overshadow the economic outlook, Finland's economy is expected to grow at a fast pace in 2022 and thereafter return to the long-term growth trend. Private consumption growth was fast in 2021, and robust growth will continue this year as

employment continues to improve and households reduce their savings. Corporate investment growth is expected to pick up significantly in 2022. From 2023 onwards, economic growth will start to slow toward its long-term potential rate, reflecting muted long-term growth prospects caused by an ageing population and slow productivity growth. This year, GDP growth is expected to be 3.0 percent, moderating thereafter to around 1.5 percent.

Risks to the economic outlook are predominantly to the downside. In the short term, the COVID pandemic constitutes the greatest risk. The rapidly deteriorated COVID situation both in Finland and internationally, caused by the Omicron variant, increases the uncertainty of households and businesses, and threatens to slow economic recovery. A prolonged pandemic would have a strong impact on private consumption, especially on the demand for services. Global supply disruptions related to the pandemic, if prolonged and more severe than expected, could also threaten the recovery of exports and growth. On the other hand, the economy could perform better than expected if both investment and household consumption grow faster than currently forecast.

Fiscal Policy

The active fiscal policy pursued by the government and the automatic stabilizers have helped to cushion the pandemic shock and stimulate the economy. Fiscal policy will become less supportive this year as many of the support measures prompted by COVID-19 will unwind, but fiscal policy remains expansionary compared to the pre-pandemic policy stance. The general government deficit will decrease further as economic growth continues to be brisk. The growth of the general government debt-to-GDP ratio will level off only temporarily in 2021-2022 and the debt ratio will once again begin to slowly rise as economic growth decelerates.

In the longer term, the increase in age-related expenditures threatens to push the debt-to-GDP ratio again on a growth path. General government finances will be strengthened through growth, employment, and moderate adjustment measures. The government aims at an employment rate of 75 percent and reversing the growth of the debt ratio in the middle of the decade. In its economic sustainability roadmap, the government has identified the following set of measures to strengthen the sustainability of general government finances: (i) increasing employment and reducing unemployment, (ii) reinforcing the conditions for economic growth, (iii) increasing public sector productivity, and (iv) reforming health and social services.

High level of government guarantees poses contingent liability risks. Contingent liabilities grew strongly in the last decade and they are also highly concentrated. In export financing, the shipbuilding industry accounts for about 50 percent of total exposures. The operations of the state housing fund also involve concentration risks. Significant growth in liabilities, combined with moderate long-term growth prospects, raises concerns about the central government's risk-bearing capacity. In a comprehensive stress testing scenario, the realization of contingent liabilities would increase government borrowing by EUR 2.1 billion.

The Parliament has approved the total state budget of EUR 64.9 billion for 2022. The budget deficit of EUR 7 billion will be covered by additional borrowing. Due to the recent deterioration of

the COVID-19 situation, the government is preparing the first supplementary budget for 2022. The budget proposal would be submitted to the Parliament in the beginning of February.

The spending limits system has been in place since 2004, and it has been an established tool in fiscal policy. The COVID-19 pandemic has led to an exceptional and challenging situation where a number of exceptions have been made to the spending limits. The authorities share staff's view that uncompromised respect for the spending limits system and the expenditure limit set would enhance fiscal credibility. In December 2021, the Ministry of Finance appointed a working group to comprehensively assess the functioning of the spending limits system and fiscal rules in general and make recommendations for the next parliamentary term. The authorities agree with staff that a spending review could be one possible, however laborious, tool to identify fiscal savings and enhance spending efficiency.

Structural Issues

The government's objective is to increase R&D expenditure to raise productivity. In December 2021, a parliamentary working group proposed the introduction of a legislative act on the financing of R&D and to draw up a statutory plan for R&D funding that would extend beyond the spending limits period. It also proposed a permanent and more extensive tax incentive for R&D activities. The goal would be to raise public sector R&D expenditure to 1.33 percent of GDP by 2030 under the projected economic development. Reaching the overall 4 percent of GDP target also requires increased investments from the private sector.

The authorities agree that structural reforms could improve the functioning of the labor market. New measures to reach the government's 75 percent employment target will be announced in February. The proposal to abolish the unemployment tunnel is under preparation as a part of a package for improving employment for senior citizens. Various other early exit options for more experienced workers will remain in place. Going forward, additional analysis of current sickness benefits and rehabilitation process in comparison to peers could reveal untapped potential. While improving employment prospects for women with care responsibilities would boost employment and equality, means and funds for ensuring sufficient access to quality childcare should be considered in an environment where regulatory changes and high demand for qualified staff are generating wage pressures.

The organization of public healthcare and social welfare services will be reformed. Legislation was approved by the Parliament in 2021, and the responsibility for organizing these services will be transferred from municipalities to wellbeing services counties from 2023. The key objective of the reform is to improve the availability and quality of basic public services throughout Finland and curb the growth of general government expenditure after the transition. Counties will receive financing from transfers from central government. Establishing the counties will incur extra costs but it is anticipated that the reform will produce savings in the 2030s.

The authorities agree that a wage bargaining model that provides both macro- and micro flexibility would be beneficial. However, finding concrete means to achieve such a model in the Finnish set-up has not been easy. The means through which the government would be able to

further such goals are limited. Moreover, as the effects of micro flexibility and associated higher wage dispersion on productivity are not ex-ante clear in light of theory and the empirical evidence on local bargaining is scarce, it is not straightforward to assess what would be the optimal way to increase micro flexibility from the perspective of aggregate productivity.

Climate Policies

The government works to ensure that Finland is carbon neutral by 2035 by accelerating emissions reduction measures and strengthening carbon sinks in a way that is fair from a social and regional perspective and that involves all sectors of society. Large investments in green transition are in the pipeline and various tax incentives have been put in place, but the authorities agree that more needs to be done to achieve the ambitious target. Staff's recommendation to increase carbon price in Finland to €125 per ton is interesting, but it remains unclear whether a single European country with a rather significant effective level of taxation could implement such a reform for every sector. For example, the authorities have reservations about the recommendation of taxing fuels used for domestic power production as the economic and climate effects may not be beneficial due to risks of carbon leakage within the Nordic electricity market or to other countries. Also, unilateral increase of domestic carbon prices for emissions in manufacturing processes, especially steel production, cement, and oil refining, would entail a risk of carbon leakage. Such proposals are also not included in the European Commission´s latest proposal to reduce net greenhouse gas emissions and similar principles of taxable base of energy taxation are widely used around the world and in reference countries. The authorities consider that more analysis on the sectoral level impact of these reforms is needed as well as discussion on the background of the current structures and the tax treatment of these sectors in reference countries.

The concept of feebates is interesting, but the recommendation, so far, is highly theoretical from the implementation perspective and the benefits are unclear for various reasons. From the energy taxation perspective, it is likely that the recommendation would not be compatible with the current, or the proposed, EU Energy Taxation Directive and EU state aid legislation. Also, a tax-neutral feebate system might not bring about more or better incentives for purchasing low emission cars compared to the current car taxation. It seems likely that the result of the reform would decrease prices of high emission cars and increase prices of plug-in hybrid electric vehicles. Moreover, it is still unclear, and seems unrealistic, how this concept could be implemented in practice, for example, how the appropriate industry-wide average energy consumption rate could be set for the sales of energy-consuming products, such as refrigerators, air conditioners, and industrial machinery, especially in a country of a size like Finland.

Financial Sector Stability

The banking sector has remained resilient and banks have been able to support the real economy throughout the pandemic. The resilience has been supported by extensive post-GFC regulatory and supervisory reforms, solid pre-pandemic asset quality, strong profitability, relatively modest recession, and a wide range of support measures, including fiscal, supervisory and macroprudential relief measures. Asset quality has deteriorated only modestly during the pandemic. Also, most of the repayment holidays granted at the onset of the pandemic have expired without signs of asset quality deterioration. The main systemic vulnerabilities in Finland continue to be

structural in nature, such as a large and concentrated banking sector, exposures concentrated to real estate sector, regional interconnectedness, high reliance on market funding, and high and increasing household indebtedness. Some of the vulnerabilities have increased during the pandemic.

Digitalization continues to shape banks' business models and competitive environment. Several banks are undergoing digital transformations and large IT modernization projects with front-loaded costs. Digitalization has made banks more vulnerable to cyber risks and cross-border financial flows expose banks to possible ML/TF risks. Competitive pressure from new players is rather limited so far, with FinTech activity largely concentrated in payment services and crypto assets.

High and growing household indebtedness remains a medium-term structural vulnerability for the financial system and the real economy. Household indebtedness has continued to grow during the COVID-19 pandemic, mainly driven by mortgage loans and slower growth in income, while before the pandemic it was more driven by housing company loans and consumer credit. As the sources and purposes of new debt may change over time, it would be important to ensure an equal regulatory treatment of different forms of debt. House prices have increased more rapidly in large cities than in the rest of the country, and the overall growth has remained moderate in international comparison.

A complete set of national borrower-based macroprudential measures are deemed necessary. In particular, to prevent an excessive increase in household indebtedness, income related borrower-based measures, like DTI/DSTI, would be warranted. Maturity limits for housing loans and several tools to address risks in construction finance or housing company loans are proposed, but the government has announced that they will not proceed with the introduction of a binding DTI. However, the FIN-FSA has the option of issuing recommendations on income-related measures to help prevent an excessive increase in household indebtedness. The introduction of binding income-related borrower-based measures will be reassessed when the new credit registry is operational in 2024.

Experience implies that more broad-based criteria for applying the countercyclical capital buffer are well-motivated. The use of the buffer in a more responsive and cyclical manner would strengthen its preventive role and it would enable a swift response to situations where cyclical buffer releases are needed. During the pandemic, bank lending in Finland was supported by removing the systemic risk buffer for all Finnish credit institutions, while countries with a positive countercyclical buffer responded by removing this buffer. The introduction of a positive neutral countercyclical capital buffer would, however, require legislative changes.

Macroprudential toolkit must evolve further. Specific instruments should be developed to tackle risks created by exposures to commercial real estate. Enhancing the macroprudential framework beyond banking using activity-based regulation is also important. The systemic relevance of the activities in question should direct the prioritization of regulatory efforts in securities markets, insurance, and infrastructure. Introducing a common framework for payout restrictions in crisis situations, as currently discussed at the EU level, would however require further analysis regarding the costs and benefits of such a framework.